



GCRO ANNUAL REPORT



# ANNUAL REPORT

2019/20



**GCRO** | Gauteng  
City-Region  
Observatory

**The GCRO comprises a partnership of:**



**GCRO ANNUAL REPORT 2019/20**

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**Published by** the Gauteng City-Region Observatory  
(GCRO), a partnership of the University of  
Johannesburg, the University of the Witwatersrand,  
Johannesburg, the Gauteng Provincial Government  
and organised local government in Gauteng (SALGA).

# **Gauteng City-Region Observatory Annual Report 2019/20**

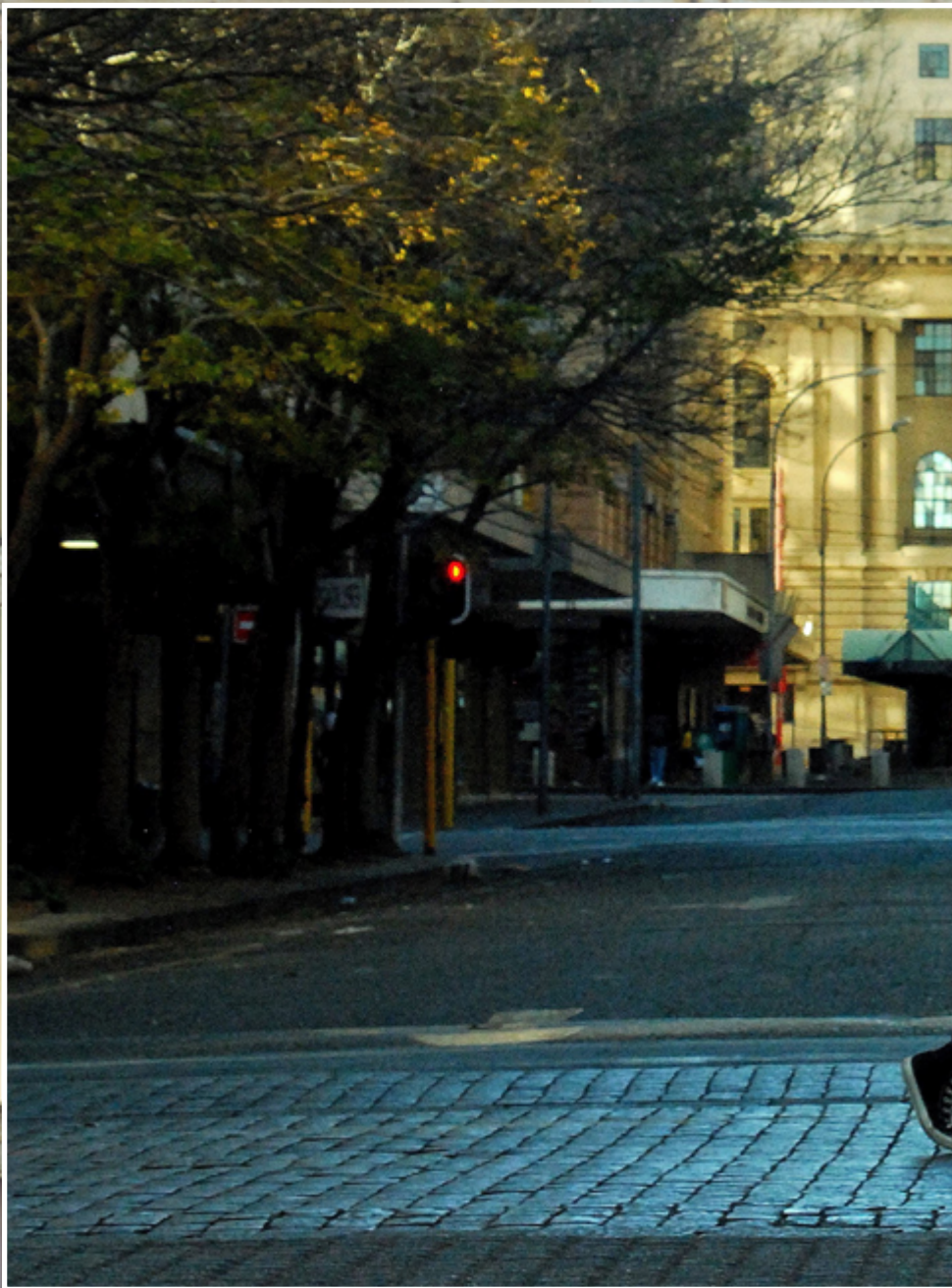






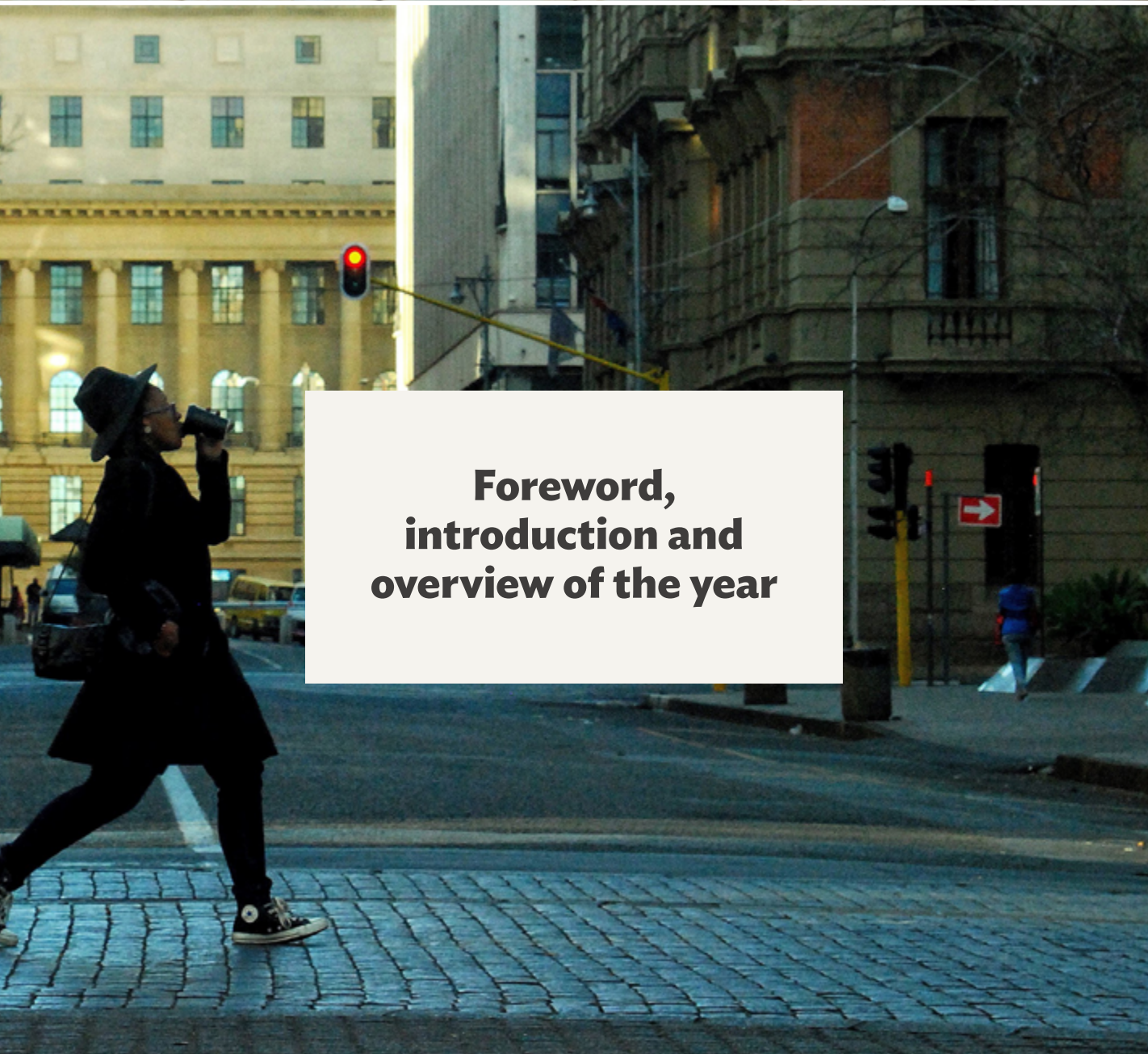
# Contents

<b>FOREWORD, INTRODUCTION AND OVERVIEW OF THE YEAR.....</b>	<b>5</b>
<b>GOVERNANCE AND ORGANISATIONAL DEVELOPMENT .....</b>	<b>13</b>
Staff and structure .....	14
GCRO strategic planning and institutional change .....	16
<b>SUPPORT TO GOVERNMENT .....</b>	<b>21</b>
<b>APPLIED RESEARCH .....</b>	<b>27</b>
Overview .....	28
1. Analytics, cartographies and visualisations .....	29
2. Changes in the social fabric/Changing the social fabric .....	34
3. Rationalities of government and governance .....	38
4. Histories and futures .....	40
5. Landscapes in transition .....	42
6. New regional economies .....	44
7. Sustainability transitions .....	46
<b>GCRO OUTPUTS, ACADEMIC PUBLISHING, PRESENTATIONS AND ACADEMIC CITIZENSHIP.....</b>	<b>49</b>

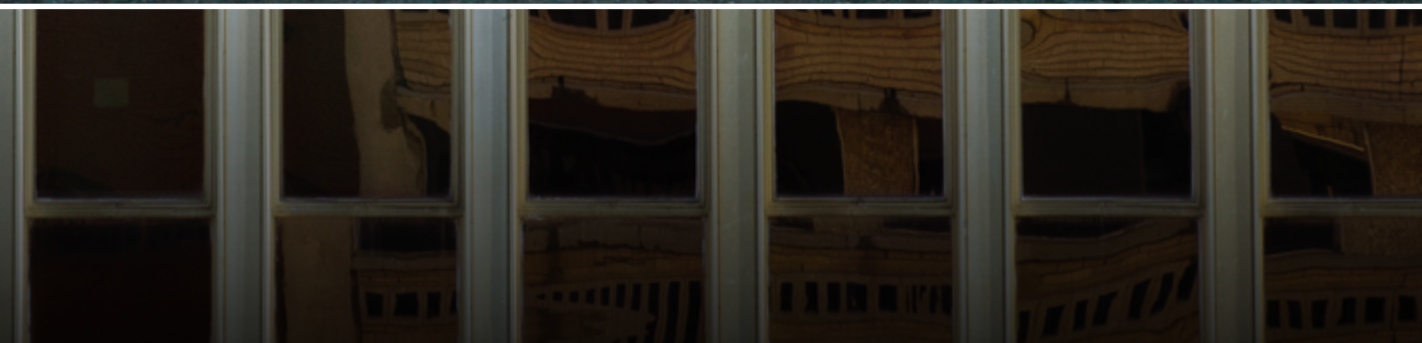


Photograph (back) by **Gareth Pon** | Photograph (front) by **Tracy Mutugi**





**Foreword,  
introduction and  
overview of the year**





# Foreword from the Chairperson of the GCRO Board

It is essential for all organisations to enter periods of reflection and self-review, to take account of their context again, their purposes and how adequately they are fulfilling their intentions. We have seen distressing examples of organisations (public and private) that appear outwardly fit for purpose but which are suddenly exposed as vulnerable and compromised in one way or another, and we are reminded again of the value of review processes that open up organisations to both internal and external scrutiny.

In my current role as GCRO Board Chairperson for this period, I have been very interested to track the review processes that the GCRO has set up for itself by honouring its constitutional commitment

to five-yearly cycles of review. An early principle was asserted: the value of external evaluation and advice is only as good as the readiness of the organisation to learn and adapt. Accordingly, the GCRO management established a series of parallel processes aimed at making the best of the five-yearly review opportunity. These included the following:

- The GCRO Board was invited to appoint a review panel of leading figures and specialists from the field, and to set the terms of reference for the review process. The subsequent Review Report reflects the panel's close engagement with the organisation, as well as containing appraisals gleaned from local and international observers.

GCRO strategic planning workshop. Photograph by Melinda Swift



- The GCRO staff embarked on an intensive self-review exercise, culminating in a 90-page Self-Review Report, which stands as a remarkable record of the organisation's recent work and how the GCRO has evolved over the past five years, as well as a valuable reflection on the challenges of working in the research-policy nexus.
- The GCRO launched an intensive review of its flagship research initiative, the Quality of Life (QoL) Survey, inviting a retired Statistician General to chair the review, and drawing leading experts from across the country into four intensive technical review workshops on various dimensions of the survey. The final QoL Review Synthesis Report, by Dr Mark Orkin, is a powerful summation of both the achievements of the QoL Survey and the recommendations for deepening its methods into the future.
- The GCRO management led the organisation in a year-long iterative strategic review process, which has tackled issues of strategy, structure, operational modalities and organisational culture. Insights from the other three review processes noted above have fed into this review, resulting in substantive modifications and new initiatives.

In summary, the GCRO Board monitored a thoroughgoing process of self-review, external scrutiny and organisational revision that reached into all dimensions of the GCRO's operations. It was encouraging to hear frank accounts of the challenges that need to be addressed, and the careful modifications that are being implemented in response. Some of these challenges are typical of organisations experiencing growth, and that are deepening diversity

in terms of race, gender and age. Other challenges are particular to the distinctive character and purpose of the GCRO, working as it does in the research-policy nexus, and innovating a field of practice that is uniquely its own in South Africa.

What has emerged from this period of review, among other things, has been the very wide interest and respect expressed by interlocutors locally and internationally, and an oft-expressed desire to see the model of the GCRO replicated in other provinces and city-regions that would benefit from the capability and insight that accumulates in an organisation of this nature. To those who might wish to establish something similar in their own territories, the various reports that have been produced during this period of review make rewarding reading.

The GCRO Board is thus confident that the organisation is very well positioned for the next five-year phase of its life. We note that the term of office of the current Executive Director, Dr Rob Moore, will conclude at the end of 2020 and, although he nominally proceeds into retirement, we trust he will maintain a productive relationship with the GCRO in the years ahead. I would like to congratulate Dr Moore for his sterling stewardship of this institution, and we will call on him in the future for his advice. We are pleased to know that his successor in 2021 will inherit an organisation that is self-confident, adaptive and fit for purpose.

**Professor Zeblon Vilakazi**  
**Deputy Vice Chancellor: Research and**  
**Postgraduate Affairs**  
**Chairperson of the GCRO Board**

*“The GCRO Board monitored a thoroughgoing process of self-review, external scrutiny and organisational revision that reached into all dimensions of the GCRO's operations”*

# Introduction and overview of the year

This report covers the April 2019 to March 2020 financial year and provides perspectives on a year of intensive reflection and review on the preceding decade of the GCRO's work, and on the new five-year phase that lies ahead.

The GCRO planned a series of review exercises for this year, including a self-review process, an external review by a panel appointed by the GCRO Board, and a 10-year review of our flagship Quality of Life (QoL) Survey. All of these have proceeded productively, and their respective outputs provide a rich record of the GCRO's trajectory of development and achievements to date. They have also provided valuable signals to inform the GCRO's five-year strategic review exercise, which also unfolded in 2019. Each of these reviews is briefly described below.

The Self-Review Report noted how the GCRO is uniquely positioned in the research–policy nexus, and the implications this has for our staff. The focus and relevance of our work needs to be facing in two directions simultaneously, sensitive to the interests and requirements of two very different institutional forms (universities and government) with their differing priorities, values and rhythms. The GCRO has to mobilise the skills and strengths of the one to serve the purposes of the other. This is far from straightforward and, among many other things, any appraisal of our work must consider how this process of strategic prioritisation, scholarly production, translation, brokerage and engagement has been conceived, given effect and evolved over time.

To this end, we differentiate between supply-side and demand-side appraisal, distinguishing between what the GCRO itself prioritises and produces, and the direct requests that come to us from our partners in government. We also distinguish between the 'countable' and visible productivity of our work across multiple thematic areas, as well as the more

intangible considerations of influence, credibility and respect arising from the quality of our work and equally in terms of the trust that has been won in building relationships. These latter considerations are important for brokering relationships with other research partners, but more especially for maintaining our relationships with our government client base. In our (increasing) role as an intermediary organisation, relationships based on trust enable us to gain insight into the context of policy-making and governance, and to craft our engagement accordingly. Our credibility and trustworthiness also enable our work to be more readily absorbed while, importantly, our independence remains respected.

As an independent research agency, the GCRO needs to be alert to both the current short- and medium-term preoccupations of government, as well as the medium- to longer-term view on urbanism more broadly. In other words, the GCRO has a responsibility to reflect and contribute to wider global theorisation around urban issues, especially in relation to the urban challenges of the (near) future and how the 'urban dividend' can be optimised in the longer run. These themes may not be strong priorities on current local government radars, but they are considerations likely to be vital in the future. Previous examples of the GCRO's foresight in this regard include sustainability-related issues, where the GCRO's work has subsequently been taken up by provincial government or the metros – for example, water security, food security and green infrastructure.

Further, the GCRO has invested in a number of research themes that reflect on how urban societies make sense of their spatial contexts, develop a sense of belonging, take ownership of the resources available to them, and strive for social mobility in one form or another. In a city-region with deep socio-economic inequality and high levels of poverty, understanding



*“As an independent research agency, the GCRO needs to be alert to both the current short- and medium-term preoccupations of government, as well as the medium- to longer-term view on urbanism more broadly”*

the potential for societal change and individual social mobility is an urgent priority. One body of urban theory emphasises ‘place-making’ and the way neighbourhoods (with their physical and social infrastructures) enable or constrain opportunity and the formation of agentive social identities. Put slightly differently, how do the urban spaces of Gauteng enable South Africans to reinvent themselves, whether this is an escape from poverty, a retreat from racist tropes, or resilience in the face of change?

So, while the GCRO invests heavily in the vital priorities of economy, transport, housing and governance, we work also to understand how societies make and remake themselves in urban contexts, how the particularities of spatial economies provide affordances or blockages to human fulfilment, and how public policy plays a role in shaping these contexts.

For the five-yearly external review of the GCRO, the review panel spent three days in the GCRO’s offices, interviewing numerous informants and considering some documentary material (including the GCRO’s Self-Review Report). The panel’s subsequent External Review Report acknowledged the strengths and achievements of the GCRO but also made several recommendations for the GCRO to consider as ‘food for thought’. The panel stressed the need for the GCRO continuously to clarify its purposes and mission with its stakeholders, not least because of its unique position, the diversity of its work and the fluidity of its context. While the panel acknowledged the vital role that consistent core funding from provincial government has played in the stability and success of the GCRO, we were nevertheless urged to continue

to diversify our funding streams to ensure resilience into the future. The panel acknowledged the growth in size and diversity of the GCRO’s staff complement and looked forward to the appointment of more black senior research leaders in the near future. The need for restructuring the organisational form of the GCRO, to take account of its growth in size and productivity, was affirmed, as well as the need for closer mentoring of, especially, younger researchers. While noting the increasingly close relationship that the GCRO enjoys with government, the panel nevertheless urged closer relationships with the cities and municipalities, and a deeper reach into the middle layers of functional areas, rather than only the senior and leadership layers.

The outcomes of the 10-year review process of the QoL Survey conducted in 2019 are summarised in the QoL Review Synthesis Report, prepared by Dr Mark Orkin, who chaired the entire QoL review process. This report draws on material gathered from the three technical review workshops. A fourth review workshop has guided thinking on data use and dissemination.

Key recommendations from the QoL Review Synthesis Report related to our approach to sampling, implementation and management of fieldwork, the scope and structure of our questionnaire, and the calculation of our QoL index. Our preparations for the sixth iteration of the QoL Survey are closely informed by these recommendations, including ensuring that the fieldwork service provider is appropriately experienced and is able to provide appropriately skilled and experienced staff and tried and tested systems. The QoL Review Synthesis Report recommends that the QoL Survey continues to operate on a two-yearly

cycle; however, our ability to do this is dependent on funding, which is currently relatively constrained.

The review processes noted above have informed the GCRO's 2019 strategic planning deliberations, which were conducted over two off-campus breakaways, numerous workshops, working groups and management debates. We looked at our priorities for research but also at our various modes of work and some of the stresses and strains that these exert on the organisation. We had to confront the need for a more rational distribution of responsibilities, but also the need for a more explicit culture of collegiality to assist us to navigate times of intense pressure. We have reorganised our management structures and oversight processes, with a view to more effective and better-distributed oversight of research projects and the thematic lines of enquiry. Two structures have been designed to deal with, respectively, the strategic planning of the GCRO's research agenda and operational oversight on a project-by-project basis. Some of these revised processes (e.g. the new Research Oversight Committee) have already established a productive routine. A draft Strategic Framework for the next five-year period was submitted to the GCRO Board in late 2019 and, during the course of 2020, the GCRO will finalise this for the phase that lies ahead.

As this Annual Report was being compiled, we were conscious that the COVID-19 pandemic is making a significant impact in South Africa and on societies around the world, and that this may have implications for the priority focus areas of the GCRO in the short to medium term, as well as for how we function as an organisation. Our colleagues have moved swiftly to draw on our existing data and insights on our city-region to inform responses to the pandemic. This may be an important period in which to appraise the resilience and adaptability of the GCRO, and the role that we play in difficult times like these.

**Dr Rob Moore**  
**Executive Director of the GCRO**





Quality of Life data use and dissemination workshop. Photograph by **Bonolo Mohulatsi**



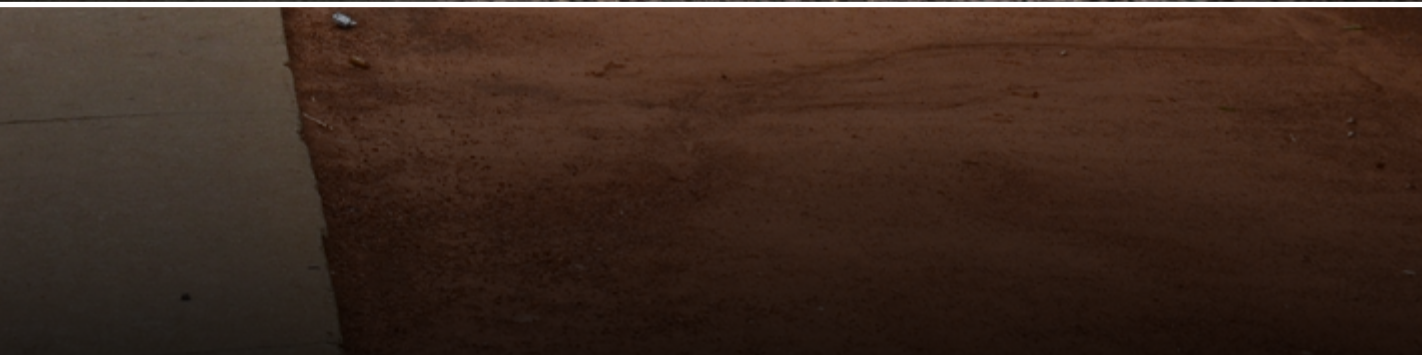


Photograph (back) by **Nqaka Mosiane** | Photograph (front) by **Mark Lewis**





**Governance  
and organisational  
development**



# Governance and organisational development

## Staff and structure

The 2019/20 period saw slow and steady change within the GCRO's staff complement. The GCRO team said goodbye to the following staff:

- Dr Koech Cheruiyot, whose contract with the GCRO ended in December 2019, is now with the School of Construction on an ongoing contract.
- Ms Bonolo Mohulatsi, who has taken up a position with Distillery Consulting as a consultant.

The GCRO embarked on a recruitment exercise in the second quarter of 2019/20 to appoint an Operations and Partnerships Senior Manager. It resulted in an overwhelming 28 applicants, many of whom were very strong. After an extensive shortlisting and interview process, we appointed Ms Melinda Swift to the GCRO team on 1 July 2019.

Later in the third quarter, we identified the need for a Quality of Life (QoL) Survey Intern and embarked on another recruitment exercise. Once again, we received an overwhelming response of 55 applicants from exceptionally strong young professionals. After an extensive shortlisting and interview process, we appointed Mr Sthembiso Mkhize to the GCRO team on 1 October 2019.

We wish all of those who have left the GCRO every success in their future careers, and we warmly welcome all the new staff, who are sure to make this an exciting new phase for the GCRO.

### **Staff development**

Ongoing staff development is a key organisational commitment for the GCRO and some of our staff members availed themselves of important development opportunities locally and abroad. These included:

- Dr Koech Cheruiyot: 5th Macroeconomic Modelling Training Workshop in Pretoria, October 2019.
- Ms Mamokete Matjomane: Naples International Doctoral Workshop in Italy, October 2019.
- Ms Yashena Naidoo: ISO/T211 South African Bureau of Standards (SABS) Masters Conference in Japan, December 2019; University of Pretoria Summer School Training in Pretoria, January 2020.



GCRO staff 2019/20 group photo



<i>Top row from left:</i>	<i>Middle and bottom rows:</i>
<p>Ms Sandiswa Mapukata – Intern  Ms Melinda Swift – Senior Manager: Operations and Partnerships (Joined 1 July 2019)  Ms Christina Culwick – Senior Researcher  Mr Jeremy Tim – Strategic Review Facilitator  Ms Yashena Naidoo – Intern  Dr Rob Moore – Executive Director  Ms Ruth Mohamed – Finance and Office Manager  Mr Darlington Mushongera – Researcher  Dr Ngaka Mosiane – Senior Researcher  Dr Koech Cheruiyot – Senior Researcher (Left 31 December 2019)  Mr Samy Katumba – Junior Researcher  Mr Christian Hamann – Junior Researcher  Mr Graeme Götz – Research Director</p>	<p>Ms Gillian Maree – Senior Researcher  Dr Julia de Kadt – Senior Researcher  Ms Nadine Abrahams – Office Administrator  Mr Thembani Mkhize – Junior Researcher  <b>Seated:</b>  Mr Sthembiso Mkhize – QoL Intern (Joined 1 October 2019)  Dr Alexandra Parker – Senior Researcher  Ms Samkelisiwe Khanyile – Junior Researcher  Ms Bonolo Mohulatsi – Intern (Left 31 March 2020)  Dr Richard Ballard – Principal Researcher  <b>Inset:</b>  Ms Mamokete Matjomane – Junior Researcher</p>



## GCRO strategic planning and institutional change

### **Strategic planning for the 2020/21 to 2024/25 period**

A process to develop a new five-year Strategic Framework for the 2020/21 to 2024/25 period commenced with a strategic breakaway for all staff in April 2019.

A detailed Self-Review Report was jointly developed by all GCRO staff in June/July 2019 and served as a resource document for an external review panel, which convened in August 2019, and for the GCRO's own five-year strategic planning process. This Self-Review Report provided an overview and summary of notable trends in the organisation, and the key research initiatives and thematic areas addressed in recent years.

An external review panel of uniquely skilled and experienced individuals was convened in August 2019. The panel members reflected on the performance of the GCRO over the past five years, the ways in which its role is taking on new dimensions and the strategic directions and priorities for the future. The panel engaged with interviewees drawn from the public sector and academic institutions, all of whom had worked with the GCRO and were therefore well placed to comment on the organisation, both in terms of its intellectual and policy contributions but also its broader impact. Observations and recommendations were synthesised into an External Review Report, and were taken into consideration in the drafting of a new five-year Strategic Framework for the GCRO.

All staff members of the GCRO were recruited into various processes aimed at the production of the new Strategic Framework. Detailed work packages were determined by the GCRO staff and, through a sequence of workshops and meetings, analyses and proposed new approaches and plans were jointly developed to address priorities for the GCRO's mandate and responsibilities; its working culture and values; external audiences and partners; the research output production delivery chain; geoinformatics; and its future organisational structure.

The products of the various work teams were debated at the GCRO strategic breakaway with all staff in October 2019, and then developed further in a series of workshops soon thereafter.

Through extensive debate and collective participation, the full GCRO team has thus participated in one way or another in co-creating iterations of the strategy, structure and future research programme for the GCRO. The GCRO's new draft Strategic Framework for 2020/21–2024/25 involves some important modifications, and the success of these arrangements will be closely monitored and adjusted as necessary in the spirit of an organisation that seeks to be responsive and adaptive.

The initial draft GCRO Strategic Framework (2020/21–2024/25) was approved by the GCRO Board in November 2019 with the mandate to earmark 2020 as a year to trial new organisational approaches to GCRO work. This will result in a final five-year Strategic Framework to be approved by the Board in late 2020.



October strategic breakaway. Photograph by **Graeme Götz**



April strategic breakaway. Photograph by **Graeme Götz**



October strategic breakaway. Photograph by **Graeme Götz**



April strategic breakaway. Photograph by **Graeme Götz**

### **Rearrangement of management structures and responsibilities**

The GCRO continues to manage a complex set of research projects and policy-oriented work through a matrix-management approach. The Gauteng City-Region (GCR) is a complex adaptive system and similarly the GCRO as an organisation is required to be a complex adaptive system. The GCRO's growing size, complexity and reach have required rethinking our internal organisation in a number of ways, including our management arrangements, our working processes, the job descriptions of the senior staff layer and our organisational culture.

At its inception, the GCRO established the post of Research Director to oversee its heartland work, a role that the incumbent has fulfilled over the past decade. However, with the growth in the size and complexity of the GCRO's operation, the multiplication of responsibilities at all levels of complexity can no longer be fulfilled by a single individual, and a more rational distribution of responsibilities must be engineered.

At top management level, the post of Research Director has been modified to Director of Research Strategy to indicate the dedication of this role to the more strategic considerations of the directions that the GCRO's research should take into the future, including important innovations in partnered approaches to research consortia, structured engagement with government (rather than ad hoc day-to-day responsiveness to requests) and leadership in priority research domains. This post is accordingly relieved of the many pipeline oversight, quality assurance and production management functions that had increasingly limited the capacity of the incumbent to give high-level strategic direction to the research enterprise of the GCRO.

The Director of Research Strategy will continue to serve on the Management Committee (ManCom – the peak management structure of the GCRO) as before, as well as on the two new structures outlined next.

The strategic planning process has led to the establishment of two new structures that will take on oversight of the GCRO's research work, namely the Research Steering Committee (ReSCom) and the Research Oversight Committee (ROC).

The ReSCom, made up of all senior and principal researchers, will provide ongoing oversight and leadership for the individual thematic areas that constitute the GCRO's research agenda. The ReSCom will serve as a collective and supportive platform for senior staff and will focus on considering and advising on the progress of the overall research agenda.

The ROC will provide detailed oversight and advice on individual research projects throughout their trajectories – inception, budgeting, work-in-progress, peer review, quality assurance and production management. Although individual research project 'leads' will have responsibility for ensuring the projects are progressing as they should, the work of the ROC will provide support in planning projects with project teams. It will also manage peer-review processes (now standard for GCRO outputs) and steer these outputs through final production processes.

### **GCRO organisational culture**

The reflective processes of 2019 and 2020 included some consideration of how we are positioned in a society in which fierce debates are under way about racial, gender and national identities, as well as deep concerns about abuse and other violent pathologies. We recognise that our organisation is embedded in society and not immune from these currents, and that a clear set of shared understandings and stances on these matters helps to preserve an environment of collegial trust and safety. We identified appropriate modes of professional etiquette and conduct between ourselves as researchers that underpin the frank and respectful relationships at the heart of a critical and reflective research organisation. These deliberations have resulted in an explicit set of values and commitments captured in a 'charter of collegiality'.

## COMMITMENTS OF A

# GCRO STAFF MEMBER

## I AS GCRO STAFF MEMBER COMMIT

1. To establish an open, collegial and inclusive organisation culture.
2. To produce high-quality research outputs and, acknowledging the sensitivities often entailed in the writing and editing process, upholding the rights and responsibilities of both authors and editors.
3. Not to plagiarise and, whenever needed, to acknowledge other authors' work and input in a spirit of mutual trust.
4. To promote a culture of trust, respect and professionalism.
5. To provide a conducive environment for diversity, which encompasses acceptance and respect.
6. To provide a safe institutional environment where all may learn, work and go about their duties and activities free from sexual harassment and sexual violence.
7. To provide a safe institutional environment free from bullying.
8. To eradicating the structures and systems that perpetuate and reproduce any forms of structural racism (e.g. race, gender, age, nationality), in both our internal and external interactions.
9. To creating a safe and inclusive working environment, where interpersonal conflict is handled in a timely and constructive manner.



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**Support to  
government**



# Support to government

The work of the GCRO is intended to be policy-facing so that provincial and local government might take useful insights from the applied research the GCRO publishes either in academic articles or as its own outputs. In addition, the GCRO often responds to requests from government for more immediate policy

support by providing data, analysis and strategic interpretation of key trends, or even the direct development of policies and strategies. Work in this area entails either larger policy-support projects or various forms of ad hoc assistance on request.



Photograph by Beth Pulane Crankshaw



## Strategic support to the Gauteng Planning Division

The Office of the Premier and the Department of eGovernment have both signalled strong support for initiatives aimed at strengthening a Regional System of Innovation in Gauteng. The GCRO continues to chair, and broker, the work of the Steering Committee towards the Regional System of Innovation. In February 2020, the GCRO co-hosted a workshop on approaches to district innovation systems for the Department of Human Settlements grouping that is planning the next phase of the Alexandra Renewal Project.

In March 2020, the GCRO held planning meetings in Brussels with the Deputy Director General in the European Commission responsible for Growth and Innovation and Territorial Development on possible collaboration on Gauteng's proposed Regional System of Innovation. These plans have been paused due to the COVID-19 pandemic, but we anticipate they will be renewed in due course with the changed circumstances borne in mind.

The GCRO was asked to support disaster management planning processes within Gauteng. This entailed the development and review of the required disaster management plans and policies. Gillian Maree serves on the project's Steering Committee and provides research support where needed.

The COVID-19 pandemic has had a substantial impact on everyone, starting in the last quarter of the financial year. In March 2020, at the start of the

outbreak in South Africa, the GCRO embarked on COVID-19 research that could support response planning efforts. The first output was the March 2020 Map of the Month based on two COVID-19 vulnerability indices. A range of insights and data visualisations have been released since then. The GCRO has also been asked to provide support to various government-led responses to the crisis. This work has included: (1) on request from the Office of the Premier, work to connect decision-making in the Gauteng COVID-19 Command Centre with various processes of localised spread mapping and modelling; (2) provision of data and maps requested by the Cities of Johannesburg and Tshwane as well as the Gauteng Department of Cooperative Governance and Traditional Affairs (COGTA); and (3) support to the Solidarity Fund with mapping to allow targeting of its national food distribution efforts. Various GCRO staff members also responded to requests for media interviews. The COVID-19 pandemic will impact the GCR for some time to come and the GCRO plans to continue its research in this area for the foreseeable future.

In December 2019, the GCRO met with the consultants assisting the Premier's Office to write the Growing Gauteng Together 2030 (GGT2030) strategy to advise on maps that could be used to illustrate the document.

*“In March 2020, at the start of the outbreak in South Africa, the GCRO embarked on COVID-19 research that could support response planning efforts”*

## Other support

In 2018/19, the GCRO supported the Deputy Director General (DDG) for Monitoring and Evaluation in the Gauteng Planning Division (GPD) in the development of an end-of-term review. Five thematic background papers were submitted in December 2018, and in the last quarter of the previous financial year, the GCRO assisted with further data for a synthesis paper being prepared by the DDG. While the primary work on this project had largely been completed in 2018/19, in the current financial year, work from the thematic review papers and the overall synthesis was presented a number of times in key government forums. A presentation combining key insights from across the papers on population dynamics, spatial trends, poverty, inequality and social mobility was presented at the June 2019 Premier's Lekgotla. This presentation was then subsequently requested for five-year strategic planning workshops by various Gauteng Provincial Government departments, including Human Settlements, COGTA and Social Development, and was also delivered to the Gauteng Monitoring and Evaluation Forum. Aspects of the spatial trends paper were presented to a South African Planning Institute workshop and requested for the strategic planning workshop of the Gauteng Department of Roads and Transport.

It was decided that the thematic background papers would be converted into a series of GCRO Occasional Papers for formal publication. Two of the papers, one on spatial trends and the other on environment and sustainability, went through peer review in this financial year, and will be further developed for publication in 2020/21.

In 2018/19, substantial work was done on various components of a firm survey on behalf of the Gauteng Growth and Development Agency (GGDA). After being presented to the Executive Management Team and the Member of the Executive Council as well as the GGDA Executive Committee in the last quarter of 2018/19, the analysis of data from the GCRO's survey of 412 business owners was further deepened to include a view on how findings differed by size of business. An enlarged presentation was then delivered three times in the first quarter of 2019/20, to the

Gauteng Department of Economic Development Senior Management Team, a GGDA Board sub-committee and the full GGDA Board. Further discussions were held with the GGDA around how to take this work forward, inter alia, through support for the development of a fuller 'system of strategic intelligence'.

The GCRO participated in several high-level meetings and technical groups to advise on the revision of the Gauteng Policing Plan, and to respond to the Premier's call for increasing evidence-led approaches to combating crime and preventing violence.

The GCRO was asked by the City of Tshwane Metropolitan Municipality to be part of the Technical Steering Committee for the evaluation of the draft Municipal Spatial Development Framework (MSDF). Christian Hamann attended a number of meetings and submitted substantial comments on the draft MSDF in the third quarter of the financial year.

On request, the GCRO assisted the Premier's Office in the Limpopo Provincial Government with information in support of their intention to establish a 'research hub' styled on the GCRO.

The GCRO's work on a Green Infrastructure Strategy for the City of Johannesburg continued in this financial year. Final drafts for comment on three components of the strategy were submitted in the second quarter and, by the fourth quarter, a substantial case study on the potential use of green infrastructure in the Jukskei catchment area was nearing completion. As explained in more detail below, in late 2019, the GCRO was given permission to officially release the GCR Water Security Perspective it had helped to coordinate on behalf of the Premier's Office in mid-2018.

In addition to these two major projects, the GCRO also provided support across a range of institutions on other sustainability issues. For example, Gillian Maree was requested by the City of Johannesburg to provide support in developing a Food Security Strategy. In October 2019, the GCRO published the Water Security Perspective for the Gauteng City-Region on our website, making the work publicly available. On request, the GCRO provided data, the

vulnerability index and research support to the City of Johannesburg's Vulnerability Assessment Report.

The GCRO was also asked to support the Gauteng Department of Agriculture and Rural Development Environmental Research Symposium held on 20 November 2019. Support included planning and stakeholder engagement. GCRO Intern Bonolo Mohulatsi gave a plenary presentation and Gillian Maree served as Programme Director for the event.

Members of the GCRO's Quality of Life (QoL) Survey team supported the City of Ekurhuleni with analyses of QoL Survey V (2017/18) data for planning purposes, and also provided training on analysis of the QoL dataset to Ekurhuleni officials.

The GCRO was requested by officials from the Departments of Roads and Transport and Economic Development to assist with research to support a taxi commercialisation strategy. An initial workshop was held where the GCRO facilitated agreement on the key components of the research. This will be written up in a concept note to be taken back to principals in the Department of Roads and Transport.

In the fourth quarter, the GCRO was recruited to advise in the Office of the Premier's process of commissioning a Digital Economy Report in the GCR.

In January 2020, the GCRO had a discussion with COGTA Deputy Minister Parks Tau on approaches to understanding and researching the proposed new District Development Model, and its application in a context similar to the GCR.



Mothers in the city research fieldwork. Photograph by Alexandra Parker









**Applied  
research**



# Applied research

## Overview

2019/20 is formally the last year in the five-year Strategic Plan approved by the GCRO Board in late 2014. That plan was formulated to build on existing areas of strength, and also to take account of new strategic frameworks such as the Gauteng Provincial Government's Transformation, Modernisation and Re-industrialisation (TMR) agenda for the 2014–19 term of office.

In terms of the 2014/15–2019/20 five-year plan, the GCRO arranged its project work into several thematic focus areas. There are seven themes that organise the GCRO's applied research, with each comprising a number of research projects. An eighth area is 'Government support', which covers work in response to requests from local, provincial or national government, as outlined above.

Thematic focus areas	No. of projects
1. Analytics, cartographies and visualisations	7
2. Changes in the social fabric/Changing the social fabric	10
3. Rationalities of government and governance	4
4. Histories and futures in comparative perspective	3
5. Landscapes in transition	7
6. New regional economies	4
7. Sustainability transitions	5

*“The 2019/20 work plan involved 40 projects across the seven applied research focus areas”*

# 1. Analytics, cartographies and visualisations

During the period under review, active work on the Quality of Life (QoL) Surveys has included analysis and the production of QoL V (2017/18) outputs, extensive work on the QoL 10-year review process, and preparations for QoL VI (2020/21). Additionally, research projects under this theme have guided the development of web applications to contribute to the open access and visualisation of the GCRO's data (e.g. QoL data, geospatial data). Examples of these online viewers are: the Quality of Life Viewer, the GCRO GIS Viewer, Ward Profile Viewer and the ESRI Urban Observatory (with the three metropolitan municipalities in Gauteng being displayed). Other projects have focused on devising innovative methods of analysing and visualising the city-region's data to derive insights, which are made publicly available through online interactive visualisation platforms. Work that began on a data-sharing strategy for the GCRO has also started to inform developments in other projects, such as the redevelopment of the current QoL Viewer.

## **QoL V (2017/18) and QoL VI (2020/21)**

The dissemination of QoL V (2017/18) analysis and outputs continued during the 2019/20 financial year. A final version of the QoL V (2017/18) Insights document was uploaded to the QoL V (2017/18) website in September 2019. The GCRO GIS Viewer was updated to reflect key QoL V (2017/18) variables. A GCRO Data Brief exploring the quality of life of students in Gauteng, based primarily on QoL V (2017/18) data, was published early in the 2020/21 financial year.

The GCRO also appointed OpenUp to support the development of a GCRO instance of WaziMaps. This is expected to be finalised during the 2020/21 financial year. A full draft of an overview report of the QoL V results was also prepared and will be finalised in the 2020/21 financial year, setting a template for what will be done more systematically for future surveys.

In addition to the work on QoL V analysis and dissemination, substantial preparatory work was undertaken for the QoL VI (2020/21) Survey during the 2019/20 financial year. While data collection for QoL VI (2020/21) was initially scheduled to begin in April 2020, this was postponed due to the

nationwide restrictions on movement and new social distancing protocols implemented in response to the COVID-19 pandemic. However, the preparatory work undertaken during the 2019/20 financial year means that data collection can begin as soon as it is safe and practical to do so.

The QoL VI (2020/21) planning process started with the constitution of the GCRO's internal project team and the refinement of the project's management structure. A dedicated intern was recruited to support the project. Following a competitive recruitment process, Sthembiso Mkhize joined the GCRO in this capacity from 1 October 2019. A panel of external experts, identified through the QoL 10-year review process (see below), was appointed to provide guidance at key points in the QoL VI (2020/21) planning and implementation processes.

Learnings from the QoL 10-year review process, as summarised in a draft QoL Review Synthesis Report written by Dr Mark Orkin, were used to guide the preparation of a comprehensive Terms of Reference for the QoL VI (2020/21) service provider. An open tender process through the Wits University Procurement Department was used to identify the most suitable service provider for QoL VI (2020/21). The GCRO engaged regularly with procurement to ensure all aspects of the process and content were certified as correct and appropriate. The tender adjudication panel included members of the GCRO QoL project team, the GCRO Management Committee, the Wits University Procurement Department and Dr Orkin. The tender adjudication process included presentations from shortlisted service providers, and a final decision to appoint GeoSpace International was made in February 2020. Appointment of the successful service provider took place early in the 2020/21 financial year.

During the 2019/20 financial year, the GCRO also engaged with the Gauteng Provincial Government and the three metropolitan municipalities in Gauteng to source supplementary funding for QoL VI (2020/21). These engagements resulted in the contribution of an additional R1.5 million from the Gauteng Provincial Government for the project, as well as financial commitments from all three metropolitan municipalities of at least R1 million



each. These additional financial contributions have been key in maintaining a suitable sample size for QoL VI (2020/21).

The QoL VI (2020/21) questionnaire was developed with input from a number of GCRO colleagues and stakeholders. For the first time, a process of motivation for content was instituted, and content was subjected to three rounds of behind-the-glass piloting. This strategy, recommended in the QoL 10-year review, allowed GCRO staff and stakeholders to see how respondents interpreted various questions. This in turn enabled substantial fine-tuning and strengthening of the questionnaire itself. Questionnaire length, identified as a challenge in the QoL 10-year review process, was reduced to just under 200 items. The questionnaire was translated into five additional languages and was ready for digitisation at the end of the 2019/20 financial year, although some additional modifications were made early in 2020/21 in response to COVID-19.

An application for ethics approval for QoL VI was submitted to Wits University's Human Research Ethics Committee for their November 2019 meeting, and approval was obtained in January 2020. This is the first time that the QoL Survey has received formal ethics approval, although all previous surveys have been implemented to the highest ethical standards.

Sampling for QoL VI (2020/21) also began during the 2019/20 financial year. The draft sampling strategy was reviewed internally and by external experts prior to finalisation. The sample selection process took place early in the 2020/21 financial year. This was the first time that all elements of sample design and sample point selection were done internally by the GCRO.

The QoL project team began considering potential impacts of the COVID-19 pandemic on the project in February 2020. A contingency plan was developed and shared with the GCRO Board in March 2020. The contingency plan determined that all survey preparations could continue but that training and data collection would be delayed until such time as all parties are satisfied that it is safe for this work to begin. The timeframe for fieldwork and the release of results has been, and continues to be, actively managed by the GCRO QoL project team and communicated with stakeholders.

### **QoL Survey 10-year review process**

During the 2019/20 financial year, substantial progress was made on this project, which had started in the 2018/19 financial year. Following on from the two successful workshops held earlier in 2019 on sampling and fieldwork management, the third and final technical review workshop took place in June 2019. The focus of this workshop was on the QoL questionnaire, as well as the calculation of the QoL index. The expert panellists were Prof. Emeritus Paul Fatti (Wits University), Prof. Talita Greyling (University of Johannesburg), Dr Benjamin Roberts (Human Sciences Research Council) and Mr Niel Roux (Statistics South Africa). Participants engaged in robust discussion and provided insights from a range of perspectives.

Dr Orkin made substantial headway on the QoL Review Synthesis Report, pulling together lessons from the three technical review workshops into a series of integrated and concrete recommendations. The report is expected to be finalised in the first quarter of the 2020/21 financial year. The draft report substantively informed planning and preparations for the QoL VI (2020/21) project.

Dr Julia de Kadt presented findings from the technical review process related to aspects of quality control at the International Society for Quality of Life Studies in Granada, Spain, in September 2019. Another two related abstracts were accepted for presentation at the 2020 conference.

An unanticipated but extremely fruitful outcome of the QoL review process has been the development of a new QoL index. This work was completed by Samy Katumba, with Dr Julia de Kadt, Dr Mark Orkin and Prof. Paul Fatti. Preliminary results were presented at the International Society for Quality of Life Studies in Granada, September 2019, and an additional abstract was accepted for the 2020 conference. Preparation of a journal paper detailing this work is well under way.

A key and recurring theme across the three technical review workshops was the importance of strengthening engagement with stakeholders and data users. Consequently, a fourth workshop on data use and dissemination was held in November 2019. Expert panellists included Dr Carla Washbourne (University College London), Shirona Patel (Wits University), Richard Gevers (Open Data Durban/Open



Gender and Urban Research Colloquium. Photograph by Graeme Götz

Cities Lab), Kim Ingle (University of Cape Town), Ruth Stewart (University of Johannesburg), Laura Grant and Alastair Otter (MediaHack) and Lynn Woolfrey (DataFirst). The workshop was well attended by GCRO stakeholders and provided a valuable learning experience. A report covering workshop proceedings and recommendations was prepared by Dr Washbourne and made available through the GCRO website.

Dr Tara Polzer-Ngwato, who had been involved in the QoL V project in an advisory capacity, was commissioned to prepare an internal report detailing the ways in which relationships between parties shaped project progression. This report was finalised, and some of the content is under development as a journal article.

### **Advancing data visualisation**

At the beginning of the financial year two previously separate projects – ‘Advancing data visualisation’ and ‘Geo-visual analytics’ – were combined in an effort to continue strengthening data visualisation and analytics work at the GCRO. The project team led some internal initiatives to improve knowledge and skills within the organisation, including a workshop on creating maps with Microsoft Excel and monthly images of data visualisation inspiration. In addition, Yashena Naidoo bolstered her skills by attending the International Science Council Committee on Data CODATA-RDA Research Data Summer School in January 2020 (hosted by the University of Pretoria).

### **Data smart GCR**

The ‘Data smart GCR’ research project aims to explore the concepts of ‘smart city’, ‘big data’ and ‘open data’, and how they can be applied in the context of the GCR. As a case study, this project has investigated various challenges and opportunities for establishing a spatial data infrastructure framework which will pave the way towards spatial data sharing and dissemination across various government departments and municipalities in Gauteng.

Within the ambit of this project, the GCRO endeavoured to support the Gauteng Planning Division’s efforts to establish a corporate GIS and a central spatial database (geoportal). Furthermore, the GCRO continued to participate in GIS forum meetings organised by the GIS Unit at the Gauteng Planning Division (Office of the Premier) on a regular basis. The GIS forum meetings gather various GIS academics and stakeholders from government (municipalities and departments) and the private sector to discuss issues related to harmonising GIS activities, including the seamless sharing and dissemination of geospatial data across the province.

This project saw the finalisation for publication of a GCRO Provocation, *Strengthening governance in the Gauteng City-Region through a spatial data infrastructure: The case of address data*, authored by Serena Coetzee, Antony Cooper and Samy Katumba. This will be released in the first quarter of 2020/21.

### GCRO QoL Viewer

Through the GCRO QoL Viewer, the QoL Survey data is made available online to a wide audience, which allows various stakeholders, academics, students and government officials to visualise and use the data. Although the QoL III (2013) Survey data can be used at ward-level, the current QoL Viewer only displays data at the municipal level. Furthermore, a considerable amount of time and effort went into incorporating the QoL III data into the current QoL Viewer to ensure the accuracy of the data as processed and stored in its original format.

There is an ongoing project which focuses on the redevelopment of the current QoL Viewer to incorporate all the current iterations (2009, 2011, 2013, 2014/15 and 2017/18) of QoL Surveys. Besides improving on the look and functionality of the interface of the new QoL Viewer, a ward-level representation of the data from 2013 to 2017/2018 Survey iterations is being considered.

This project will be informed by the outcome of a Data Sharing Strategy for the GCRO which is currently being conceptualised. A revised version of the terms of reference, which will guide the selection of a suitable service provider, is currently being drafted.

### Website and dissemination

Under this project, the GCRO ran the Urban Gaze documentary photography competition, which aimed to promote the work of emerging Gauteng-based photographers. The competition was launched in December 2018 and ran until March 2019. An exhibition of the finalists' and winners' entries opened on 2 May 2019 and was on display at the Keyes Art Mile in Rosebank, Johannesburg, until 30 June 2019. The project was designed with a view to generating visual content for portraying the city-region's people and places in GCRO publications and online platforms. In this project, the GCRO partnered with the Keyes Art Mile and received much valued sponsorship from Fujifilm. The competition's adjudicators included several professional photographers, specialists from fine arts departments at Wits University and the

University of Johannesburg, and a representative from the Gauteng Provincial Government.

The redevelopment of the back-end of the GCRO website, which began in 2018/19, was completed in the first quarter of the year. Troubleshooting on a snag-list of issues continued through the second and third quarters. The website saw numerous updates and new content added throughout the year, including an organisation-wide process of revision and updating in preparation for the review panel which sat in mid-August. New projects were added, and the content of existing projects refreshed. Other 'standing pages' were also revised. During the final quarter, there was significant traffic through the website, largely due to the work done on the COVID-19 pandemic. This content included a new project page with various reports, several interactive visualisations and a frequently updated front page. Published in March 2020, the COVID-19 Map of the Month has, together with other related outputs, driven significant traffic to the GCRO website.

### Spatial statistical modelling

This project employs spatial statistical methods to identify socio-economic variables within the QoL dataset that help explain patterns and trends observed in selected socio-economic phenomena such as poverty, segregation/diversity and inequality, and dissatisfaction with local, provincial and national government performance in Gauteng.

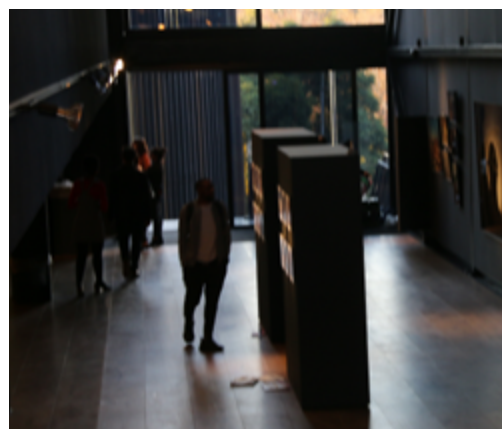
To date, four peer-reviewed academic articles and three Maps of the Month from this project have been published. The project leaders have presented research at various conferences and professional and government meetings. A GCRO Occasional Paper, *Spatial patterns and correlates of dissatisfaction with the performance of government in the Gauteng City-Region*, and an academic paper, *Spatial segregation indices for understanding racial residential segregation in Gauteng*, are currently being drafted. These two articles will be finalised in the next financial year (2020/21).



Urban Gaze exhibition. Photograph by **Christina Culwick**



Urban Gaze exhibition. Photograph by **Christina Culwick**



Urban Gaze exhibition. Photograph by **Christina Culwick**



## 2. Changes in the social fabric/Changing the social fabric

The research theme 'Changes in the social fabric/Changing the social fabric' comprised 10 active projects during the 2019/20 financial year. These projects examined various social dimensions of life in Gauteng, including the broad social structures of racial segregation, gender and xenophobia; the lived realities of inequality through the lenses of food security, poverty and motherhood; and the urban symbology of graffiti and street renaming.

### Graffiti in the city

This project explores the role of graffiti and street art in Gauteng's urban environment. Following the publication of a GCRO Occasional Paper entitled *Where do we draw the line: Graffiti in Maboneng* (in the fourth quarter of the 2018/19 financial year), a story map of the findings was published as the August Map of the Month in the third quarter of the 2019/20 financial year, and the project team was interviewed for an article in the Wits University *Curios.ty* online magazine (Issue 8: Code) released in the fourth quarter.

The GCRO continues to work with Open Data Durban (now Open Cities Lab) – a non-profit

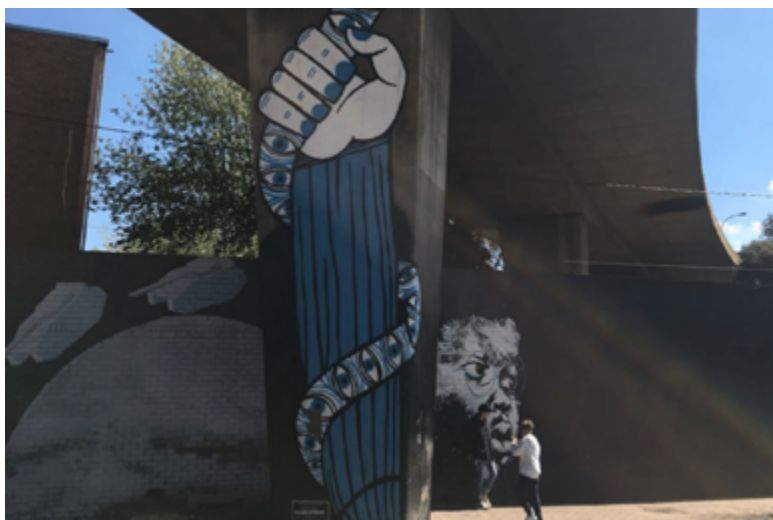
organisation engaged with government and data – to finalise a graffiti application, a platform to map graffiti and street art in the GCR. A workshop was held with graffiti artists in Johannesburg, who commented on the usability and usefulness of the application. The graffiti app is expected to be completed and launched in 2020/21.

Alexandra Parker and Samkelisiwe Khanyile have also been working on an academic paper based on the Occasional Paper. This was submitted to the *City* journal and sent for peer review in the fourth quarter.

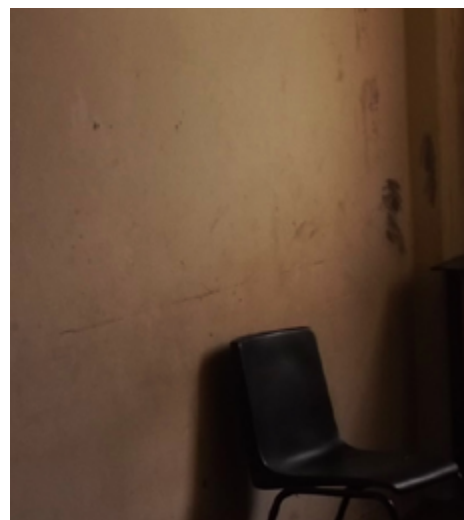
### Hungry city-region

In the financial year under review, the GCRO continued to co-host a Gauteng Food Governance Community of Practice with the Institute for Poverty, Land and Agrarian Studies (PLAAS). The Community of Practice meetings, held once a quarter at the GCRO offices, have proved extremely valuable.

Together with Ronald Wall (Wits University) and the Delft University of Technology (TU Delft) in the Netherlands, the GCRO submitted a joint three-year funding proposal for research into the water–energy–food nexus in the GCR to the Merian



Graffiti near Maboneng. Photograph by Alexandra Parker



Photograph by Kgao Bonaventure Mashego

Fund–Cooperation South Africa. The proposal, called ‘Urban-Eden’, will be a collaboration involving Wits University, the GCRO and TU Delft if the bid is successful.

The GCRO returned to drafts of a report on food flows and food systems governance, commissioned a number of years ago but incomplete due to the departure of the project’s senior researcher. The GCRO approached Florian Kroll from Siyakhana, who was involved in writing the original work, to revise and update the report. Discussions, unfortunately interrupted by the COVID-19 crisis, will be resumed in 2020/21.

### **Post-apartheid social mixing**

The purpose of this project is to examine continuities and changes to apartheid’s spatial patterns, particularly with respect to racial segregation. During the past financial year, the project team worked on two book chapters. One chapter (by Richard Ballard and Christian Hamann) investigates socio-economic segregation in Johannesburg and is part of a volume that compares socio-economic segregation in various cities around the world. This chapter was accepted by the editors following a peer-review process and went

into production in early 2020. The second chapter (by Richard Ballard, Christian Hamann and Themban Mkhize) was written for a volume entitled *Homes still apart? South Africa’s post-apartheid cities*. The project team completed a draft chapter that was peer reviewed and accepted in 2019. Revisions to the chapter and the finalisation of the project have been planned for the 2020/21 financial year. With these two outputs nearing publication, this project is now completed.

### **Poverty – a capabilities approach**

This project builds upon earlier GCRO work on poverty and inequality and is aimed at deepening our understanding of poverty in the GCR. The research analyses poverty in the city-region through the lens of Amartya Sen’s capabilities approach. During this past financial year, the authors – Darlington Mushongera (GCRO) and Prudence Kwenda and Miracle Ntuli, both from the School of Economics and Finance at Wits University – completed the first draft of a GCRO Occasional Paper, which first went through an initial phase of internal review and was then submitted for external review. The report was also accepted for presentation at the Human Development Capabilities Association scheduled for June 2020 in Auckland, New



Zealand. An academic paper distilled from the report was also submitted to the *Social Indicators Research* journal for consideration. The GCRO Occasional Paper is expected to be published during the 2020/21 financial year.

### **Place and street renaming**

This research project seeks to, among other things, unpack the reasons why place and street renaming is resisted in some areas within the GCR but accepted in others. The research relies primarily on two case studies, on inner-city Johannesburg and central Pretoria, which will lead to the publication of a GCRO Occasional Paper and a photo essay. An abstract submitted by the project lead to this year's Research Committee 21 (a conference on the sociology of urban and regional development) has been accepted. However, the conference got pushed to 2021 due to the COVID-19 pandemic. COVID-19 restrictions have also affected the research fieldwork, but virtual meetings with relevant authorities are currently being planned.

### **Scale, belonging and exclusion**

The transition from apartheid to democracy has been accompanied by the reconfiguration of different kinds of territory, usually to make them larger and more inclusive. The GCRO plans to mark the 30th anniversary of the scrapping of the Group Areas Act in 1991 with a special issue in an academic journal on the theme 'The scale of belonging'. This collection contains case studies on school catchment zones; the relationship between an elite gated community and nearby shack settlements; the integration of former homeland settlements of Mabopane into the municipality of Tshwane; the relationship between the township of Alex and the broader urban system; a case study of a ward straddling areas that were once zoned for different race groups; chauvinistic responses within a settlement once designated as coloured; and proposals to convert a district municipality in Gauteng into a metropolitan municipality. These studies have been drafted and will be prepared for peer review in the 2020/21 financial year.

### **Mothers in the city**

This project aims to understand how gender and domestic life intersects with the urban environment by understanding the experiences of parents in Gauteng. Most of this financial year was spent collecting data for the second phase of the project. A pilot study was initiated in the informal settlement of Denver, Johannesburg. Lindsay Howe, based at the University of ETH Zurich, Switzerland, was contracted to assist the team with the fieldwork and mobility tracking. The data for five case studies across Gauteng was collected and interviews were transcribed. Preliminary findings were presented at the State of the Art: Gender and Urban Research Colloquium in August 2019 in Johannesburg, and at the Feminist Explorations of Urban Futures Conference in Toronto in September. In addition, Alexandra Parker has also drafted an academic journal article on gender and domestic arrangements with regards to quality of life, which will be submitted for peer review in the 2020/21 year.

### **Gauteng's geographies of education**

This project examines the geography of education in Gauteng to gain a better understanding of the complexity of spatial variation in the quality of education, and how policy might enhance the provision of universal access to quality education in the province. During the past financial year, the focus of the project has been on reviewing literature related to education systems and school choice and their implications in various local and international contexts. In April 2019, the project team also attended the final Feeder Zone Task Team meeting, which was set up in response to the Constitutional Court judgment that required school feeder zones to be determined by the Gauteng Department of Education (GDE). Other interactions with the GDE have continued beyond this process, particularly around setting a research agenda for the department. Data collection on school choices also started during this financial year through the 'Mothers in the city' project.



### Network for gender and urban research

This project is a collaboration with Prof. Margot Rubin from the Wits Research Chair in Spatial Analysis and City Planning, and aims to bring together scholars and practitioners from diverse backgrounds to examine the intersection of gender and urban space. A colloquium, State of the Art: Gender and Urban Research, hosted on 30 August 2019, was very well attended and 10 papers were presented. A call for abstracts for a special issue and panel at the Southern Africa City Studies Conference in September 2020 was circulated and submitted to the conference committee. Planning had begun for a workshop on feminist methodologies in May 2020, but this was postponed due to the COVID-19 pandemic.

### Social change

This project is focused on two outputs. The first is a GCRO Provocation, *Predicting xenophobic attitudes*, which was published in September 2019 and is a study conducted by Dr Mark Orkin using the GCRO Quality of Life V (2017/18) dataset. Whereas previous quantitative studies on xenophobia struggled to show the relationship between socio-economic characteristics and xenophobic attitudes, Dr Orkin's Provocation shows how the objective conditions of respondents do indeed become relevant when mediated by intervening variables. The second output is an edited volume entitled *The Routledge handbook of social change*, which is being edited by Richard Ballard (GCRO) and Clive Barnett (Exeter University) and consists of a large number of commissioned chapters from around the world. During the 2019/20 financial year, the editors worked with authors on drafts of their chapters in preparation for the review process in the 2020/21 financial year.



Mothers in the city research fieldwork. Photographs by Alexandra Parker

### 3. Rationalities of government and governance

The GCRO continued its interest in governance research under the theme ‘Rationalities of government and governance in the GCR’. In the year under review, the theme had four active projects which were aimed at understanding both government itself and the relations between government and society. The GCRO embarked on research that looked specifically at administrative configurations using ethnographic methods. Other research focused on how governance configurations either facilitate or hinder government performance and the achievement of coherence in a complex city-region such as the GCR, and on building knowledge partnerships with other research agencies researching city-regions globally.

#### **Ethnographies of the state – the politics of service delivery planning**

This is a multi-year ethnographic study into internal decision-making processes around development and service delivery planning in the City of Johannesburg. After completing fieldwork in the City, GCRO lead researcher Darlington Mushongera completed his data analysis and compiled a first draft of a paper envisaged as a GCRO Provocation. This project forms a large part of Darlington’s PhD work. After an internal review process, the Provocation was submitted for external review, and publication is expected in the 2020/21 financial year.

#### **State function in infrastructure planning**

This project entails deep-level analysis of state functions in planning and budgeting for service delivery with a specific focus on water services. The project is closely linked to the ‘Ethnographies of the state’ project and the PhD work of Darlington Mushongera, the lead researcher in the project. Due to these overlaps, the project was placed on hold to allow Darlington to concentrate on his PhD and the ethnographies Provocation. Funds for the project were reallocated.

#### **Knowledge partnerships for urban futures**

This project includes several exchanges between the GCRO and partners in government or research. The GCRO participates in the BRICS+ Urban Lab network of urban research agencies in the various BRICS countries (Brazil, Russia, India, China and South Africa), directed at generating fresh theorisation of the governance approaches and challenges in complex city-regions. A meeting of the partners in São Paulo this year advanced the work on a publication which will include reflections on five city-regions in the BRICS nations. The GCRO has been convening a series of meetings on the proposed strengthening of a Regional System of Innovation across the GCR, and discussions are under way to formalise a partnership with the European Commission to support work in this direction. Work continues to establish strengthened research leadership in the field of city-region economics, ideally in partnership with neighbouring universities. Valuable opportunities for new research partnerships on the theme of city-region transport systems have opened up, with a grouping including Barcelona, Dakar, Maputo and Gauteng, and a collaboration with the Gautrain Management Authority (which also provides support to the newly authorised Gauteng Transport Authority). The GCRO continues its collaboration with University College London, the University of Melbourne and UN-Habitat towards deepening understanding and insight into the emergence of urban observatories as key resources to inform the ‘urban turn’.

#### **Governing the GCR – a Provocations series**

The GCRO is working on a series of Provocations on the theme of governance in the city-region. Several have been commissioned, reflecting on various ways of understanding the challenge of achieving coherence in complex city-regions. This year, work was advanced on several texts in the pipeline, including: (1) re-demarcation and party politics in Sedibeng;

(2) the importance of spatial data infrastructures for governance in the GCR, with a specific focus on address data (an output shared with the 'Advancing data visualisation' project); (3) a comparative case study on the Île-de-France city-region; (4) water governance in the GCR; (5) governing the peripheries

of the GCR; and (6) bus rapid transit (BRT) in Johannesburg (an output shared with the 'A political economy analysis of transit corridors' project). Several of these Provocations are scheduled for completion and publication in the 2020/21 financial year.

*“The GCRO embarked on research that looked specifically at administrative configurations using ethnographic methods”*



The importance of spatial data infrastructure. Photograph by **Serena Coetzee**

## 4. Histories and futures

This thematic area aims to provide temporal context and approaches to the research on the GCR. It has traditionally been a less busy project space, although there have been several large and fruitful outputs in recent years, with two international exhibitions of GCRO research under the ‘What is the GCR?’ project. At the very end of the financial year, in March 2020, a new project on COVID-19 was initiated, ‘Responding to the COVID-19 pandemic in Gauteng’. This has a large project team and, in the final weeks of March, saw much energy and productivity in the form of maps, visualisations and insights to inform responses to the pandemic. Over the next few years, this will be a key area of research cutting across many of the GCRO’s research themes and will produce key academic, GCRO and policy outputs.

### Futures of the GCR

This project involves commissioning an external specialist, the Head of the University of Cape Town’s African Centre for Cities, Prof. Edgar Pieterse, to research and write a GCRO Occasional Paper on global and local urban trends likely to shape the future development of the GCR. Prof. Pieterse was contracted in the last quarter of the financial year with a view to a first draft of the paper being submitted in late 2020.

### What is the GCR?

This project aims to provide some context for the research that the GCRO undertakes within global urban theory debates and other urban research institutions around the world. Slow progress has been made on this project, but the beginning of 2020 saw the initiation of an urban theory reading group. A three-year data collection process was mapped out to visit key research institutions in the United Kingdom (year 1), North America (year 2) and Asia (year 3), but this is now on hold due to the COVID-19 pandemic.

### Responding to the COVID-19 pandemic in Gauteng

This is a new project in response to the COVID-19 pandemic. Since the pandemic reached Gauteng, the GCRO has been working quickly and collaboratively to compile research to inform disaster response planning, and to support government (particularly the Gauteng Command Centre and War Room). The 2019/20 year saw the first outputs of the project, notably the development of risk and vulnerability indices to understand spatial aspects of the impact of COVID-19 in Gauteng, published as a GCRO Map of the Month. The map explored two key themes: (1) the multiple risk factors to maintaining basic preventative hygiene and social distancing; and (2) the multiple risk factors in the context of major shutdowns and potential outbreaks. This output has received broad media attention and engagement and has been included in the provincial response planning strategies. It will also be submitted for academic publication in the next financial year. The Map of the Month data was specifically requested by the Cities of Johannesburg and Tshwane, the Gauteng Department of Health, IBM Research, the National Institute for Communicable Diseases modelling team and Wits University/iThemba LABS.

To ensure data and research was immediately available and accessible to a range of audiences, and particularly to support government response planning, the project has begun to develop a variety of Data Insights, which provide data and analysis on a range of key areas in the fight against COVID-19. Both the data and the insights are being made available.

The GCRO has been asked to support the Office of the Premier and has been working to connect decision-making in the Gauteng COVID-19 Command Centre with various processes of localised mapping and modelling of the spread of COVID-19.





Landscapes in transition. Photograph by Nqaka Mosiane

## 5. Landscapes in transition

The 'Landscapes in transition' research theme examines the ways in which the spaces of the GCR are changing from a multidimensional perspective (economic, social, ecological, political and cultural). Such a remaking of the city-region is explored from the scale of the body, through a neighbourhood, to spaces outside the Gauteng province, albeit with daily connections to this province. During the financial year under review, this line of enquiry published a themed issue of a journal and contributed research insights to an external partner, the South African Local Government Association (SALGA). A number of the projects under this theme are likely to publish their reports in the 2020/21 financial year, including 'Untangling transport', 'A political economy analysis of transit corridors' and 'Landscapes of peripheral and displaced urbanisms', with some of them already having contributed to different kinds of outputs (book chapters, journal papers and workshops).

### Untangling transport

The 'Untangling transport' project explores transport in the GCR and how emerging data collection methodologies could be used to enhance understanding of the ways in which people traverse the city-region. The GCRO partnered with Lindsay Blair Howe on the 'MyJozimoves' project, which tracked participants' movements through the GCR. The MyJozimoves report has gone through various edits during this financial year and will be sent for review in the coming financial year. MyJozimoves data has required significant cleaning and formatting, but the dataset is now ready for mapping and further spatial analyses which will be included in the report.

### Spatial imaginaries

The 'Spatial imaginaries' project explores the way in which ordinary people and key role players imagine space in Gauteng and how these imaginaries influence the ways in which we act in and on space. It will produce a GCRO Research Report with chapters on theory, social mixing in Brixton, film in Johannesburg, the pedestrian bridge linking Sandton and Alexandra township, and the Alex Renewal Programme.

During the course of this financial year, the team held an internal review of the draft text and then commissioned an external peer review in preparation for final revisions and the publication process.

### Conceiving, producing and managing neighbourhoods

The GCRO Occasional Paper *Conceiving, producing and managing neighbourhoods: Comparing urban upgrading initiatives in Gauteng* was designed and published during this financial year. The paper, co-authored by project lead Thembani Mkhize and Dr Aidan Mosselson, focuses on the conceptualisation and management of two neighbourhood renewal programmes in Hillbrow and Norwood, Johannesburg. In mid-August 2019, the project lead was invited to a SALGA Human Settlements and Municipal Planning Working Group Workshop, where he presented a summary of the paper's findings. In addition, some of the research fieldwork has been utilised for a journal article on social cohesion in inner-city Johannesburg. The article has been submitted for a special series of *Transformation* and is currently under peer review.

### Building Gauteng

The 'Building Gauteng' project examined the role of property developers in producing urban space. The project's major output is a themed issue of the journal *Environment and Planning A: Economy and Space*, published in March 2020 and guest edited by Richard Ballard and Sian Butcher. This collection of papers arose following a two-day workshop, in July 2016, on the theme 'Understanding the role of urban developers'. Four of the papers in the collection are on developers in Johannesburg and three others on cases in Toronto, Manila and London. This project is now complete.

### A political economy analysis of transit corridors

The key output from this project will be a Provocation on Johannesburg's Corridors of Freedom. Following peer review and revision, the Provocation was further reviewed internally by two senior GCRO staff, and the work returned to the authors in December 2019. It is being finalised for publication in 2020/21.

### **Landscapes of peripheral and displaced urbanisms corridors**

This research project seeks to provide a broad visual and textual overview of the outer reaches of the GCR, including detailing the lived experiences of specific areas of the GCR's northern periphery, specifically how the people of former KwaNdebele, Rustenburg, Mabopane and Soshanguve are remaking their lives and their landscapes. This research already supplied content for a November 2019 workshop on Mining and the Future of Rustenburg. It also contributed material to a forthcoming book chapter ('Livelihoods, the body and the space of Phokeng, Rustenburg'); a GCRO Provocation (*Governing the peripheries of the Gauteng City-Region*); and an article ('Mobility, access and the value of the Mabopane station precinct') in a special issue of *Urban Forum*. The report promises to continue providing content to more publications, including one on the ecology of an egalitarian city.

### **Drosscapes of the GCR**

Samkelisiwe Khanyile and Ngaka Mosiane made considerable progress on a new project – 'Drosscapes of the GCR'. The main output will be a GCRO Research Report, although two journal papers and one related visualisation will also be published. The team brought in Dr Njabulo Chipangura, who is affiliated with the Centre for Urbanism and Built Environment Studies (CUBES). Dr Chipangura has been working on an introductory chapter for the report using a political ecology lens and the 'drosscapes' urban design paradigm to situate the international and South African literature on post-mining landscapes. The team is finalising this as a first chapter of the Research Report and is in the process of identifying key case studies for more detailed analysis of the GCR's post-mining landscape in the next phase of the project. Ngaka Mosiane and Samkelisiwe Khanyile are also collaborating with the Universities of the Free State and Queensland, Australia, investigating different aspects of post-mining in South Africa and Australia.

Photograph by Christina Culwick





## 6. New regional economies

Since the dawn of the democratic era, economic progress in the GCR, achieved in a context of structural conditions inherited from past development paths, has impacted on key challenges such as poverty, unemployment and inequality. This thematic area contributes to addressing the constraints to developing a GCR economy that is competitive, inclusive and sustainable.

### Understanding Gauteng's urban space economy

This project aims to deepen understanding of how the urban space economy of Gauteng works, and to interrogate how the government has understood and taken up the challenge of intervening in this area over the last two decades. The project was on hold for a while but will see the publication of a GCRO Occasional Paper reporting on the results of the firm survey pilot conducted for the Gauteng Growth and Development Agency in 2018. Substantial analysis presented to various fora in the first half of 2019 is in the process of being written up.

### Township economies in the GCR

This project builds towards multidimensional research on township economies, including histories of township entrepreneurship and spatial fabric constraints. The project is divided into two parts. The first interrogates the concept of Gauteng township economies through a GCRO Provocation. The second part is an empirical study investigating different ways of intervening in townships to revitalise the economy, focusing on three main aspects: infrastructure and services, regulation, and entrepreneurship. Progress was made with internal inputs in drafting

a Provocation provisionally titled *Interrogating the township economies concept in the Gauteng context*.

During the course of the year, the GCRO was identified as a key stakeholder in the township economies research space and was requested to play a role in a project facilitated by the Gauteng Premier's Office and the South African Cities Network, in part looking at creating the Gauteng Township Economy Development Act.

### Methods for regional economic analysis

This project aims to facilitate a process to empower economic development officials with tools and techniques to better understand regional economy dynamics. A number of academic papers were submitted for review. 'Spatial agglomeration economies in the Ekurhuleni metro' was submitted to the *European Regional Science Association Journal*, and 'Heterogeneous relationships between income levels and associated correlates in the Gauteng City-Region, South Africa: A quantile regression approach' was submitted to the *Development Southern Africa* journal, which was published online in December 2019. This project was closed following Dr Cheruiyot's departure from the GCRO at the end of 2019.

### Street trader organisations in policy processes

This project entails an investigation of the role and influence of leaders on street trading management through a comparative study of Ekurhuleni, Johannesburg and Tshwane in Gauteng, with reflections from Ahmedabad in India. The project lead, Mamokete Matjomane, participated in the Informal Economy Convening Panel organised by Good Governance Africa in May 2019, giving input on the regulation and mainstreaming of the informal economy. She also presented at various platforms, including at the Royal Geographic

*“During the course of the year, the GCRO was identified as a key stakeholder in the township economies research space”*

Society-International Business Group (RGS-IBG) Annual International Conference in London, 27–29 August 2019; the Naples International Doctoral Workshop in Italy, 2–5 October 2019; the Practices of the State in Urban Governance Workshop, 28–30 October 2019; and at the Gauteng Provincial Government Economic Development Policy Dialogue on ‘The impact of international migrants on the Gauteng informal economy’ in November 2019. Mamokete drafted a number of academic papers for various platforms, including ‘Losing battles and winning the war? Street traders’ influence on

policy-making in India’ (submitted to the *Journal of Asian and African Studies*); ‘Acting like the state: Participation of leaders in street trade management in the GCR’ (in a book project, *Practices of the state in urban governance*); ‘From the margins of the state to quasi state bureaucrats: The shifting nature of street trader leaders’ agency in Tshwane, South Africa’ (for *The question of agency in African Studies* book project with the University of Naples ‘L’Orientale’). During the course of 2020, Mamokete also made considerable progress drafting her PhD thesis under the supervision of Dr Richard Ballard and Prof. Claire Benit-Gbaffou.



Photograph by Harikrishnan Sasikumar

## 7. Sustainability transitions in the GCR

The ‘Sustainability transitions’ theme remains a significant area of work at the GCRO, with a number of projects producing notable outputs during the year. The work looks at a range of aspects relating to the sustainability of Gauteng’s development path, and has generated research and policy interest.

### **Metabolic flows and infrastructure transitions**

This project continues the GCRO’s long-standing analysis of resource flows (water, power, waste, food and so on) through and within the city-region, and the infrastructure changes that will be required to reduce the consumption of scarce resource inputs and the production of waste outputs. To take the work forward, previous GCRO team member Dr Alexis Schäffler-Thomson – who helped start the original project in 2012, and who now works at Pegasys Consulting – was contracted to co-author a GCRO Occasional Paper on the governance of resource flows in the GCR. The research was started in the financial year under review with a research framework, a literature review and an initial set of interviews in September 2019. Write-up of the Occasional Paper started in the final quarter of the financial year. Research and drafting will continue in 2020/21. An abstract of the work was submitted to the Southern African City Studies Conference scheduled for September 2020.

Through 2019, the GCRO met a number of times with Paul Currie from Local Governments for Sustainability (ICLEI-Africa), who is working on a multi-city programme of support to mainstream metabolic flows analysis. Johannesburg is one of several African cities identified for the programme, and the GCRO is being counted as a partner in this work.

In May 2019, Christina Culwick presented the GCRO’s data collection and analysis on metabolic flows to a Cape Town workshop, Urban Metabolism in Policy and Practice: A Global Discussion, convened by ICLEI-Africa, GreenCape, the University of Cape Town and the Metabolism of Cities network.

### **Green assets and infrastructure**

The ‘Green assets and infrastructure’ project began in 2011/12 and is a multi-year project aimed at influencing how green infrastructure is planned and managed in the GCR. The project has over time built the argument that the network of ecological systems and features (green infrastructure) in the city-region can support traditional infrastructure and service provision. The project’s overall objective is to influence the approach to managing green assets by assessing the extent to which green infrastructure has been valued by various stakeholders and by demonstrating ways to incorporate green infrastructure within government budgeting and planning processes. This project has progressed from establishing the theoretical potential of applying green infrastructure in the GCR to exploring ways in which the theoretical green infrastructure approach could be applied in this context. This project has involved working collaboratively with government, academia and the private sector.

In 2019/20, the project’s third GCRO Research Report, *Towards applying a green infrastructure approach in the Gauteng City-Region*, went through external peer review and revision and was then published in December 2019. This report, as the third in the series, builds on the foundations laid in the first two reports and phases of the project. It demonstrates how a number of green infrastructure projects have been implemented in the GCR and provides practical guidance for applying a green infrastructure approach more systematically throughout Gauteng.

The urban agriculture report, which was written by a group of University College London (UCL) Science, Technology, Engineering and Public Policy (STeAPP) Masters students with the support of the ‘Green assets and infrastructure’ project team in 2017/18, has been reworked by Hannah Benn into a GCRO Occasional Paper. This paper sets out to enhance the understanding of the role that urban agriculture plays as part of the green infrastructure network in the City of Johannesburg. The 2019/20 financial year saw final revisions made to the content, mapping and visualisations, and the paper will be completed and ready for publication in 2020/21.



### **Water security in the GCR**

This is an ongoing GCRO project that seeks to unravel the water security challenges in the GCR. This includes seeking to understand both the critical bio-physical and governance factors at play in the GCR urban water management landscape, with more immediate attention being placed on understanding and exploring solutions to upstream–downstream water pollution challenges facing various urban areas in the city-region.

An important output from this project has been the development of a Gauteng Water Security Perspective, commissioned by the Office of the Premier in the Gauteng Provincial Government. The water crisis experienced in Cape Town from 2016 to 2018, as well as in other areas in South Africa, raised questions around water security in the GCR and the Premier requested focused attention on the issue in early 2018. While the document was completed in July 2018, only during 2019 did the GCRO receive permission to share it more broadly. The GCRO has subsequently been involved in a number of follow-up activities, including planning for implementation of the Perspective as well as support to Gauteng Provincial Government to host a province-wide Water Summit using the Gauteng Water Security Perspective as a basis.

Another significant development is a partnership with Brown University (Institute at Brown for Environment and Society), the Global Change Institute at Wits University and the South African Weather Service to understand best practices for a water secure megacity. During 2019/20, the partnership saw the publishing of a peer-reviewed article in *Water Policy on Day Zero* and the submission for funding to the US National Science Foundation (NSF) to support continued academic work across the partnership.

### **Gauteng as a long-term ecological study site**

Work at the GCRO on metabolic flows and infrastructure transitions has demonstrated the difficulty in analysing urban–ecological systems. Decision-makers in the GCR need to grapple with urbanisation and economic growth within environmental and resource limits, and in many cases the knowledge to support these processes either does not exist or is not useful. Most ecologists are not familiar with urban systems and most urbanists work

in social and economic fields with little interaction or joint research with environmental scholars.

The ‘Long-term ecological research’ (LTER) project was set up to provide long-term records that would answer questions about the structure and function of urban ecosystems, and contribute to the knowledge base for the sustainability of the GCR. This project looked to better understand what a LTER for the GCR would research, as well as who the key role players, contributors and partners would be. The costs, time and commitment it would take to run a LTER within the GCR means that the GCRO does not have the budget or capacity to continue to explore the idea and the project has been closed.

### **Justice and sustainability transitions**

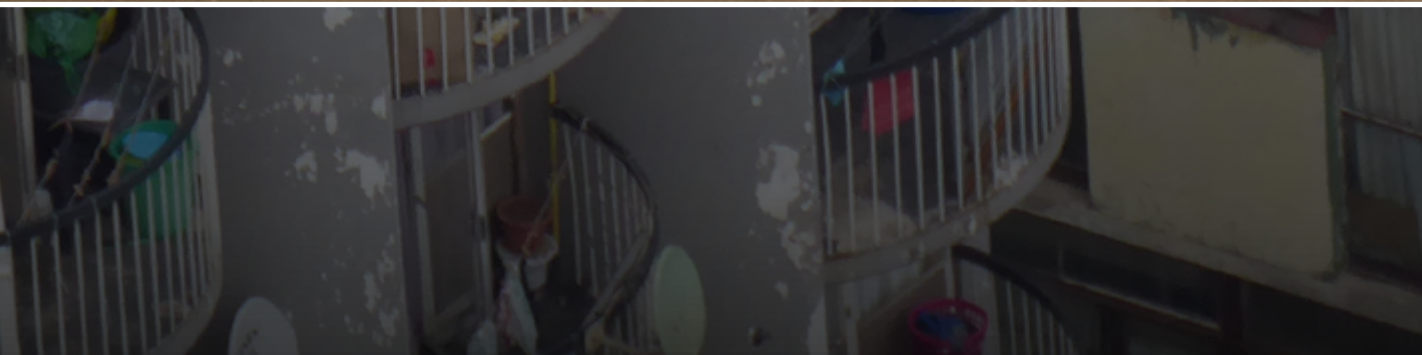
This project explores the challenge of planning and managing urban development in Gauteng in a way that takes both social justice and environmental sustainability into consideration. Over several years, the project has developed a set of case studies, each exploring different examples of where there is a complex interaction between social justice and environmental sustainability objectives. The project interrogates how government in the GCR juggles the trade-offs between these agendas and begins to unpack some of the complexities inherent in the associated decision-making processes.

During the 2019/20 financial year, the set of case studies, which have been compiled into a GCRO Research Report, went through external peer review. Guided by the reviewers’ comments, each author will revise their chapter, and the report will be published in the 2020/21 financial year.

Christina Culwick’s PhD, which falls under the umbrella of this project, made significant progress in the 2019/20 financial year with the finalisation of her fieldwork, including interviews with residents in Lufhereng and Pennyville and a set of key informant interviews. Initial data analysis was undertaken, and a journal article was written and accepted by the journal *Environment and Urbanization* for inclusion in the April 2020 issue. This paper uses empirical data to assess some of the justice and sustainability implications of government housing developments in Gauteng.









# GCRO outputs, academic publishing, presentations and academic citizenship

## GCRO outputs and events

- Mkhize, T., & Mosselson, A. (2019). *Conceiving, producing and managing neighbourhoods: Comparing urban upgrading initiatives in Johannesburg*. GCRO Occasional Paper 14. May 2019.
- Orkin, M. (2019). *Predicting xenophobic attitudes: Statistical path models of objective and subjective factors*. GCRO Provocation 4. September 2019.
- Culwick, C., & Khanyile, S. (Eds). (2019). *Towards applying a green infrastructure approach in the Gauteng City-Region*. GCRO Research Report 11. December 2019.
- Muller, M., Schreiner, B., Vermeulen, A., Reddy, T., & Maree, G. (2019). *Water security plan for the Gauteng City-Region: Securing water for continued growth and wellbeing*. GCRO report prepared for the Gauteng Provincial Government.





Excerpt from *Towards applying a green infrastructure approach in the Gauteng City-Region*

### GCRO data outputs

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
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#### Map of the Month

<p><b>March 2019:</b> The use of public services in Gauteng</p> <p><b>April 2019:</b> ‘Politics is a waste of time’: An analysis of who agrees with this statement</p> <p><b>May 2019:</b> 2019 Gauteng provincial election results</p> <p><b>June 2019:</b> Measuring accessibility of government housing programmes</p>	<p><b>July 2019:</b> Industrial and commercial buildings</p> <p><b>August 2019:</b> Graffiti and urban art in Maboneng – a virtual tour</p> <p><b>September 2019:</b> Gauteng at night: Light intensity at 2am</p>	<p><b>October 2019:</b> Feeling depressed or hopeless in Gauteng</p> <p><b>November 2019:</b> Participation in Integrated Development Planning</p>	<p><b>January 2020:</b> The changing municipal and provincial boundaries of Gauteng</p> <p><b>February 2020:</b> Mapping three residential types: Gated communities, informal dwellings and government projects</p> <p><b>March 2020:</b> Mapping vulnerability to COVID-19 in Gauteng</p>
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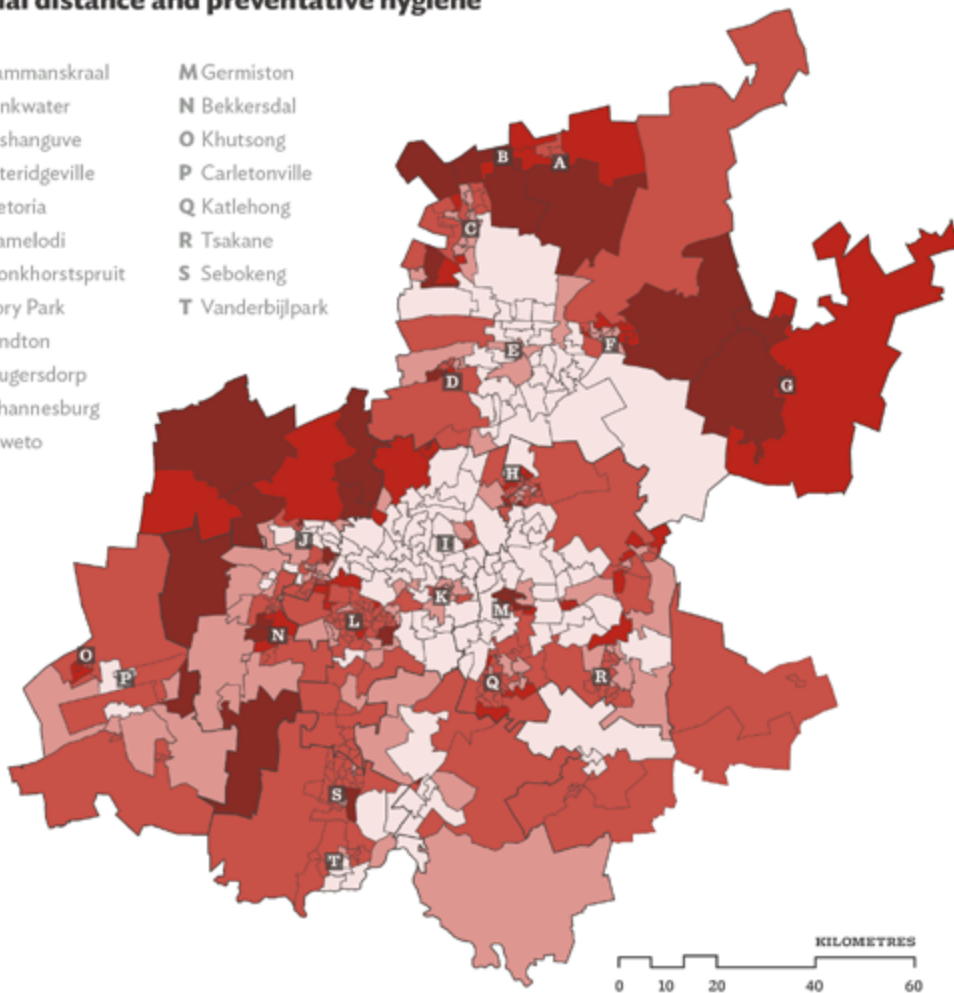
#### Interactive visualisation

<p><b>July 2019:</b> The fabric of the Quality of Life index visualisation</p> <p><b>July 2019:</b> The fabric of the Marginalisation index visualisation</p>			<p><b>31 March 2020:</b> Khanyile, S. (2020). COVID-19 cases in South Africa by province</p>
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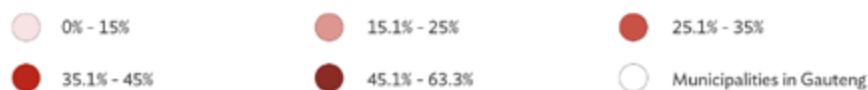
## COVID-19: Index of risk factors to maintaining social distance and preventative hygiene

GCRO

- |                   |                  |
|-------------------|------------------|
| A Hammanskraal    | M Germiston      |
| B Stinkwater      | N Bekkersdal     |
| C Soshanguve      | O Khutsong       |
| D Atteridgeville  | P Carletonville  |
| E Pretoria        | Q Katlehong      |
| F Mamelodi        | R Tsakane        |
| G Bronkhorstspuit | S Sebokeng       |
| H Ivory Park      | T Vanderbijlpark |
| I Sandton         |                  |
| J Krugersdorp     |                  |
| K Johannesburg    |                  |
| L Soweto          |                  |



**Risk factors:** the percentage of respondents per ward who live in crowded dwellings, have no access to flush toilets, have no access to piped water, use public healthcare facilities, have no access to electronic communication and rely on public transport



**Data Source** GCRO QoL V (2017/18)

March 2020 Map of the Month



### Other key outputs

- De Kadt, J., Ballard, R., Cheruiyot, K., Culwick, C., Götz, G., Hamann, C., Khanyile, S., Maree, G., Matjomane, M., Moore, R., Naidoo, Y., Parker, A., & Sondzaba, S. (2019). 'Insights from GCRO's Quality of Life Survey V (2017/18)'. 29 August 2019.
- De Kadt, J., Götz, G., Hamann, C., Maree, G., & Parker, A. (2020). 'Mapping vulnerability to COVID-19 in Gauteng: Supplementary material to the March 2020 Map of the Month'. COVID-19 Insight. 25 March 2020.

### Conferences, seminars and symposia organised by the GCRO

- The GCRO continued to co-organise a seminar series with the National Research Foundation's (NRF) South African Chair of Spatial Analysis and City Planning, the Wits City Institute and the Centre for Urban and Built Environment Studies (CUBES). The seminar series is called Faces of the City. The GCRO is responsible for coordinating the seminars in the third quarter of the calendar year.
- The GCRO continues to co-host the Gauteng Food Governance Systems Community of Practice, including events hosted on 17 April 2019, 22 October 2019 and 16 March 2020.
- A major colloquium was held under the banner of the Network for Gender and Urban Research on 30 August 2019, entitled State of the Art: Gender and Urban Research.
- A workshop on urban governance research was convened by the GCRO on 18 September 2019. This initial workshop laid a basis for further workshops on 7 November 2019 and 19 February 2020 of what has become known as the Urban Governance Working Group. The workshops have included representatives from the Gauteng Provincial Government, the South African Cities Network (SACN), Public Affairs Research Institute (PARI) and the South African Research Chair in Spatial Analysis and City Planning of the NRF.
- An extremely successful fourth workshop in the Quality of Life review series was held on 6 November 2019. Attended by over 30 participants, this workshop considered QoL Survey data use and dissemination practices, and possible innovations.

## Published works

### Books and journal special issues

Richard Ballard and Sian Butcher guest edited a special theme issue of the journal *Environment and Planning A: Economy and Space*, published in March 2020. Titled 'The relational work of developers', the themed issue consisted of eight articles. Those articles authored by GCRO staff are amongst the publications listed below.

### Published books, journal articles, book chapters and conference proceedings

- Ballard, R., & Butcher, S. (2020). Comparing the relational work of developers [Editorial]. *Environment and Planning A: Economy and Space*, 52(2), 266–276. <https://doi.org/10.1177/0308518X19893684>
- Ballard, R., & Harrison, P. (2020). Transnational urbanism interrupted: A Chinese developer's attempts to secure approval to build the 'New York of Africa' at Modderfontein, Johannesburg. *Environment and Planning A: Economy and Space*, 52(2), 383–402. <https://doi.org/10.1177/0308518X19853277>
- Bischoff-Mattson, Z., Maree, G., Vogel, C., Lynch, A., Olivier, D., & Terblanche, D. (2020). Shape of a water crisis: Practitioner perspectives on urban water scarcity and 'Day Zero' in South Africa. *Water Policy*, 22, 193–210. <https://doi.org/10.2166/wp.2020.233>
- Cheruiyot, K. (2020). Heterogeneous relationships between income levels and associated correlates in Gauteng province, South Africa: Quantile regression approach. *Development Southern Africa*. December 2019. [Online first] <https://doi.org/10.1080/0376835X.2019.1701415>
- Culwick, C., & Patel, Z. (2020). Building just and sustainable cities through government housing programmes. *Environment and Urbanization*, 32(1), 133–154. <https://doi.org/10.1177/0956247820902661>
- Mkhize, S.P., & Maharaj, P. (2020). Meeting the sexual health needs of LGBT youth: Perceptions and experiences of university students in KwaZulu-Natal, South Africa. *Journal of Social Service Research*. [Online first] <https://doi.org/10.1080/01488376.2019.1711295>

- Washbourne, C.-L., Culwick, C., Acuto, M., Blackstock, J.J., & Moore, R. (2020). Mobilising knowledge for urban governance: The case of the Gauteng City-Region Observatory. *Urban Research & Practice*. [Online first] <https://doi.org/10.1080/17535069.2019.1651899>
- Ballard, R., & Harrison, P. (2019). Transnational urbanism interrupted: A Chinese developer's attempts to secure approval to build the 'New York of Africa' at Modderfontein, Johannesburg. *Environment and Planning A: Economy and Space*, 52(2), 383–402. <https://doi.org/10.1177/0308518X19853277>
- Cheruiyot, K., Katumba, S., & Wray, C. (2019). Patterns and correlates of dissatisfaction with government performance in the Gauteng City-Region, South Africa: A comparison across three government spheres. *The Review of Regional Studies*, 49, 1–26.
- Culwick, C., Washbourne, C.L., Anderson, P., Cartwright, A., Patel, Z., & Smit, W. (2019). CityLab reflections and evolutions: Nurturing knowledge and learning for urban sustainability through co-production experimentation. *Current Opinion in Environmental Sustainability*, 39, 9–16. <https://doi.org/10.1016/j.cosust.2019.05.008>
- De Kadt, J., Van Heerden, A., Richter, L., & Alvanides, S. (2019). Correlates of children's travel to school in Johannesburg-Soweto: Evidence from the Birth to Twenty Plus (Bt20+) study, South Africa. *International Journal of Educational Development*, 68, 56–67. <https://doi.org/10.1016/j.ijedudev.2019.04.007>
- Griffiths, F., Olukemi, B., Brown, C., De Kadt, J., Malatji, H., Thorogood, M., Tseng, Y., & Goudge, J. (2019). Development of a tool for assessing quality of comprehensive care provided by community health workers in a community-based care programme in South Africa. *BMJ Open*, 9(9). <https://doi.org/10.1136/bmjopen-2019-030677>
- Katumba, S., Cheruiyot, K., & Mushongera, D. (2019). Spatial change in the concentration of multidimensional poverty in Gauteng, South Africa: Evidence from Quality of Life Survey data. *Social Indicators Research*, 145(1), 95–115. <https://doi.org/10.1007/s11205-019-02116-w>
- Matjomane, M. (2019). Running a spaza shop. In C. Benit-Gbaffou, K. Dormann, S. Charlton & S. Didier (Eds), *Politics and community-based research: Perspectives from Yeoville Studio, Johannesburg* (pp.249–256). Johannesburg: Wits University Press.
- Matjomane, M., & Benit-Gbaffou, C. (2019). Integrating the 'community' in the governance of urban informality at the neighbourhood level. In C. Benit-Gbaffou, K. Dormann, S. Charlton & S. Didier (Eds), *Politics and community-based research: Perspectives from Yeoville Studio, Johannesburg* (pp.257–276). Johannesburg: Wits University Press.
- Mosiane, N. (2019). Review of AbouMaliq Simone and Edgar Pieterse (2017) 'New urban worlds: Inhabiting dissonant times'. *Transformation*, 99, 133–135. <https://doi.org/10.1353/trn.2019.0015>
- Mosiane, N.B. (2019). Informal housing. In A. Orum & S. Smiley (Eds), *The Wiley Blackwell encyclopaedia of urban and regional studies*. London: Wiley-Blackwell. <https://doi.org/10.1002/9781118568446.eurs0536>
- O'Farrell, P., Anderson, P., Culwick, C., Currie, P., Kavonic, J., McClure, A., ... Wong, G. (2019). Towards resilient African cities: Shared challenges and opportunities towards the retention and maintenance of ecological infrastructure. *Global Sustainability*, 2(19). <https://doi.org/10.1017/sus.2019.16>
- Ramantswana, T., Cheruiyot, K., & Azasu, S. (2019). Corporate headquarters location preferences in South African metropolitan areas: A conjoint analysis approach. *Journal of Real Estate Literature*, 27(2), 227–244. <https://doi.org/10.22300/0927-7544.27.2.227>

## Presentations

GCRO staff present to academic and other audiences on a regular basis, as part of academic citizenship and scholarship:

- Alexandra Parker on behalf of the COVID-19 project team (March 2020). 'Mapping vulnerability to COVID-19'. GPG EXCO meeting, GPG offices, 23 March 2020.
- Alexandra Parker (March 2020). 'Spouse in the house: Household structures and roles, gender, and quality of life in the Gauteng City-Region, South Africa'. GCRO Brownbag Seminar, 26 March 2020.
- Margot Rubin and Alexandra Parker (March 2020). 'Mapping household mobility: Reflections on studying parents in Gauteng'. Micro-Dynamics and Macro-Processes Workshop 1, University of Eduardo Mondlane, Maputo, 12 March 2020.
- Richard Ballard (March 2020). 'Trickle out urbanism: Is the construction of gated communities good for poor neighbours?' Neighbourhoods, Diversity and Threat: Different Perspectives from Current Urban Research Projects International Workshop, Wits Club, 12 March 2020.
- Darlington Mushongera (March 2020). 'Poverty in the GCR'. South African Social Security Agency (SASSA), 9 March 2020.
- Graeme Götz and Melinda Swift (March 2020). 'Overview of the Gauteng City-Region Observatory'. District Development Model Task Team, National Department of Planning, Monitoring and Evaluation, 5 March 2020.
- Sthembiso Pollen Mkhize (February 2020). 'Meeting the sexual health needs of LGBT youth: Perceptions and experiences of university students in KwaZulu-Natal, South Africa'. GCRO Brownbag Presentation, 26 February 2020.
- Rob Moore (February 2020). 'Cities and data: Urban monitoring and governance for sustainable cities'. World Urban Forum 10, Abu Dhabi, 11 February 2020.
- Rob Moore (February 2020). 'Mainstreaming research into policy'. World Urban Forum 10, Abu Dhabi, 9 February 2020.
- Thembani Mkhize (January 2020). 'Rescaling municipal governance in Gauteng: Sedibeng's pending re-demarcation and re-categorisation'. GCRO Brownbag Seminar, GCRO Boardroom, 29 January 2020.
- Graeme Götz (December 2019). 'GCR research agenda for 2020–2024'. Gauteng Provincial Government Policy Colloquium, 11 December 2019.
- Ngaka Mosiane and Melinda Swift (November 2019). 'GCRO and key aspects of the GCR'. Urban Africa 2050, Cathedral of the Sacred Heart, Pretoria, 29 November 2019.
- Darlington Mushongera (November 2019). 'Gauteng in brief'. Gauteng Sports Indaba, Turffontein Racecourse, 22 November 2019.
- Mamokete Matjomane (November 2019). 'The impact of international migrants on the Gauteng informal economy'. Gauteng Department of Economic Development Policy Dialogue, The Reef Hotel, 20 November 2019.



Rob Moore photographed at the UN-Habitat Assembly, Nairobi.



- Ngaka Mosiane (November 2019). 'Revisiting the transformation potential of the city of Rustenburg'. Mining and the Future of Rustenburg Workshop, University of the Free State, 19–20 November 2019.
- Ngaka Mosiane (November 2019). Respondent at the session 'Solutions to fast-growing cities'. Roundtable: Where the Rubber Hits the Road: Africa's Cities as Poles of Growth, Vipingo Ridge, Mombasa, 8–10 November 2019.
- Alexandra Parker and Julia de Kadt (November 2019). 'Data use and dissemination'. 4th QoL Review Workshop: Data Use and Dissemination, GCRO offices, 6 November 2019.
- Rob Moore and Ngaka Mosiane (October 2019). 'Demographics, spatial reconfiguration and mobility'. Presentation at Transport Knowledge Conference, Africa Future Centre, University of Pretoria, 29 October 2019.
- Julia de Kadt (October 2019). 'The GCROs Quality of Life Survey'. City of Ekurhuleni QoL VI Planning Workshop, Germiston, 16 October 2019.
- Mamokete Matjomane (October 2019). 'Manifestations of street trader leaders in the Gauteng City Region'. International Doctoral Workshop, Procida, Italy, 4 October 2019.
- Alexandra Parker (September 2019). 'Inequalities within and with-out: How gender dynamics within families impact spatial footprints'. Feminist Explorations of Urban Futures Conference, Toronto, 26 September 2019.
- Thembani Mkhize (September 2019). 'The politics of rescaling municipal governance amidst party politics in the Gauteng City-Region: Sedibeng's pending re-demarcation and re-categorisation'. India Habitat Centre, Delhi, 19 September 2019.
- Mamokete Matjomane (September 2019). 'Acting like the state? Trader leaders' participation in street trade management in Gauteng municipalities'. SoAP PhD Symposium, Wits University, 13 September 2019.
- Samy Katumba (September 2019). 'Spatial statistical analysis of dissatisfaction with local, provincial and national government in Gauteng: Evidence from Quality of Life data'. Public Sector Economist Forum–Steering Committee, Marshalltown, 12 September 2019.
- Alexandra Parker (September 2019). 'The quality of life of families in Gauteng'. International Society for Quality of Life Studies Conference, Granada, Spain, 7 September 2019.
- Julia de Kadt, Graeme Götz and Kiera Crowe-Pettersson (September 2019). 'Ensuring high quality measurement of quality of life: A South African case study'. International Society for Quality of Life Studies Conference, Granada, Spain, 6 September 2019.
- Samy Katumba and Julia de Kadt (September 2019). 'A data-driven approach towards a longitudinal quality of life index using factor analyses'. International Society for Quality of Life Studies Conference, Granada, Spain, 6 September 2019.
- Graeme Götz (September 2019). 'Overview of the GCR and GCRO research'. Visiting delegation of Chinese officials, 6 September 2019.
- Alexandra Parker and Samkelisiwe Khanyile (September 2019). 'The value of archiving and mapping graffiti'. GCRO/ODD Graffiti Application Workshop, 2 September 2019.
- Richard Ballard, Gareth Jones and Makale Ngwenya (August 2019). 'Trickle out urbanism: Are gated communities good for poor neighbours?'. Royal Geographical Society Annual Conference, London, 28–30 August 2019.
- Margot Rubin and Alexandra Parker (August 2019). 'State of the art: Gender and urban research'. State of the Art: Gender and Urban Research Colloquium, Wits University, 30 August 2019.
- Alexandra Parker, Margot Rubin and Lindsay Howe (August 2019). 'Inequalities within and with-out: How gender dynamics within families impact spatial footprints'. State of the Art: Gender and Urban Research Colloquium, Wits University, 30 August 2019.
- Samkelisiwe Khanyile (August 2019). 'Mapping active and abandoned mines along the Witwatersrand basin: Issues of data availability, data quantity and data quality'. Royal Geographic Society-International Business Group (RGS-IBG) Annual International Conference, London, 30 August 2019.
- Mamokete Matjomane (August 2019). 'Acting like the state? Trader leaders' participation in street trade management in Gauteng municipalities'.

- RGS-IBG Annual International Conference, London, 28 August 2019.
- Yashena Naidoo (August 2019). 'Evaluating novel address systems in South Africa'. RGS-IBG Annual International Conference, London, 28 August 2019.
  - Sandiswa Sondzaba (August 2019). 'Imagining Alexandra: Built environment professionals' reflections on conceptualising and building Alexandra, Johannesburg during the Alexandra Renewal Project'. RGS-IBG Annual International Conference, London, 28 August 2019.
  - Rob Moore (August 2019). 'Demographics, spatial reconfiguration and mobility'. Presentation to the Gautrain Management Board, 21 August 2019.
  - Alexandra Parker (August 2019). 'The quality of life of families in Gauteng'. GCRO Brownbag Seminar, 21 August 2019.
  - Graeme Götz (August 2019). 'Population dynamics, poverty, inequality and social mobility'. Gauteng Department of Health Strategic Breakaway, 21 August 2019.
  - Gillian Maree (August 2019). 'Water security in the Gauteng City-Region'. Faces of the City Seminar Series, Wits University, 20 August 2019.
  - Thembani Mkhize (August 2019). 'Conceiving, producing and managing neighbourhoods: Comparing urban upgrading initiatives in Johannesburg'. South African Local Government Association (SALGA) Human Settlements and Municipal Planning Working Group, SALGA Gauteng offices, 16 August 2019.
  - Julia de Kadt (August 2019). 'GCRO's Quality of Life Survey'. Ntirhisano Service Delivery War Room Workshop, Johannesburg, 15 August 2019.
  - Graeme Götz (August 2019). 'Population dynamics, poverty, inequality and social mobility'. Gauteng Department of Social Development Strategic Breakaway, 5 August 2019.
  - Graeme Götz (August 2019). 'Overview of GCRO research and selected data sources'. Visiting delegation from Tongji University hosted by Prof. Philip Harrison, 2 August 2019.
  - Rob Moore and Philip Harrison (July 2019). 'Conceptual framework for the governance of megacities'. Meeting of the BRICS+ Urban Lab, São Paulo, 28 July 2019.
  - Philip Harrison, Margot Rubin and Rob Moore (July 2019). 'The Gauteng case study'. Meeting of the BRICS+ Urban Lab, São Paulo, 28 July 2019.



Landscapes in transition. Photograph by Nqaka Mosiane



Photograph by Richard Ballard

- Rob Moore (July 2019). 'Knowledge for urban governance: The case of the GCRO'. Public Lecture at UniNove University, São Paulo, 28 July 2019.
- Ngaka Mosiane (July 2019). 'Local economic development in intermediate cities of the extended Gauteng City-Region'. Respondent at the SACN-SALGA Report Launch Seminar: Rethinking LED: Local Economic Development in Intermediate Cities, Johannesburg, 27 July 2019.
- Samy Katumba (July 2019). 'A spatial analytical approach towards understanding racial residential segregation in Gauteng'. 29th International Cartographic Conference, Tokyo, 25–29 July 2019.
- Michael Sachs and Graeme Götz (July 2019). 'Development and change in the Gauteng City-Region'. Mapungubwe Institute for Strategic Reflection/University of Johannesburg Conference on 25 Years of Democracy, 23 July 2019.
- Bonolo Mohulatsi, Yashena Naidoo and Sandiswa Sondzaba (July 2019). 'Reimagining marginalised spaces: A case study of the Alexandra Township'. SA GeoTech Indaba 2019, Johannesburg, 22 July 2019.
- Koech Cheruiyot (July 2019). 'Understanding space economy: Theory, methods and illustrations'. Gauteng Department of Economic Development Seminar – The Science of Where: Implementation of GIS in Economic Development, July 2019.
- Christian Hamann and Richard Ballard (July 2019). 'The spatial make-up of Gauteng: Key elements'. South African Planning Institute Spatial Transformation Seminar, Midrand, 12 July 2019.
- Christina Culwick (July 2019). 'Spatial change and transport in Gauteng: Observations from the Quality of Life Survey'. South African Transport Conference, 8 July 2019.
- Graeme Götz (July 2019). 'Population dynamics, poverty, inequality and social mobility'. Gauteng Monitoring & Evaluation Forum, 5 July 2019.
- Julia de Kadt and Rob Moore (June 2019). 'The GCRO's Quality of Life Survey: An overview'. Metropolis International Seminar: Metropolitan policies and indicators of social cohesion. CIDOB, Barcelona, 27 June 2019.
- Rob Moore (June 2019). 'An overview of approaches to the Gauteng innovation ecosystem'. National Innovation Coordination Workshop, Technology Innovation Agency, Pretoria, June 2019.
- Rob Moore (June 2019). 'Working in the data-policy nexus in South Africa: The Gauteng City-Region Observatory'. Joint Research Centre of the European Commission, Seville, June 2019.
- Graeme Götz (June 2019). 'Towards a Quality of Economy Survey'. Gauteng Growth and Development Agency (GGDA) Board strategy session, 27 June 2019.
- Graeme Götz (June 2019). 'Population dynamics, poverty, inequality and social mobility'. Gauteng Department of Cooperative Governance and Traditional Affairs Strategic Breakaway, 27 June 2019.
- Christina Culwick (June 2019). 'Data and analysis to support transport decision-making in Gauteng'. Developing an Open Data Strategy for Smart Cities, Gauteng Department of Roads and Transport, 26 June 2019.
- Graeme Götz (June 2019). 'Population dynamics, poverty, inequality and social mobility'. Gauteng Department of Human Settlements Strategic Breakaway, 24 June 2019.
- Rob Moore and Graeme Götz (June 2019). 'Population dynamics, poverty, inequality and social mobility'. Gauteng Provincial Government EXCO Lekgotla, 17 June 2019.
- Thembani Mkhize (June 2019). 'Social cohesion in urban regeneration? Lessons from Ekhasa Neighbourhood CID, Hillbrow, Johannesburg'. Social Cohesion in South Africa: Scientifically Engaging with a Buzzword, Stellenbosch University, 4 June 2019.
- Rob Moore (May 2019). 'Data for sustainable urban development: The Gauteng City-Region Observatory'. 1st UN-Habitat Assembly – Innovation for Better Quality of Life in Cities and Communities, Nairobi, 27–31 May 2019.
- Graeme Götz (May 2019). 'Innovations in data acquisition, analysis and representation for evidence-based policy-making'. Human Settlements Round Table on Innovation





- and Transformative Technologies, National Department of Human Settlements, 29 May 2019.
- Alexandra Parker and Samkelisiwe Khanyile (May 2019). 'Visible and legible landscapes: Graffiti in the redevelopment of Maboneng, Johannesburg'. GCRO Brownbag Seminar, 22 May 2019.
  - Christina Culwick (May 2019). 'Data and complexities of resource flow analysis in the Gauteng City-Region'. Urban Metabolism in Policy and Practice: A Global Discussion, Cape Town, 9 May 2019.
  - Richard Ballard (May 2019). 'Spatial trends in Gauteng'. Presentation to Arizona Architecture students, 20 May 2019.
  - Richard Ballard (May 2019). 'Trickle out urbanism: Are gated communities good for poor neighbours?' University of Johannesburg Geography Departmental Seminar, 17 May 2019.
  - Mamokete Matjomane (May 2019). 'Regulation and mainstreaming of the informal economy'. Informal Economy Convening Panel, Good Governance Africa, Rosebank, 16 May 2019.
  - Gillian Maree (May 2019). 'Planning for a water secure Gauteng City-Region'. Presentation to the Pretoria Architectural Forum, 15 May 2019.
  - Richard Ballard (May 2019). 'Trickle out urbanism: Are gated communities good for poor neighbours?' Spatial Typologies and the Built Environment: Navigating African Urban Landscapes (Mellon-funded WiSER/University of Michigan collaboration), 6 May 2019.
  - Rob Moore (April 2019). 'Quality of Economy Survey – Phase 1 results 2018/19'. GGDA Board Sub-Committee on Trade and Investment, 25 April 2019.
  - Rob Moore (April 2019). 'Quality of Economy Survey – Phase 1 results 2018/19'. Gauteng Department of Economic Development Senior Management Team, 24 April 2019.
  - Samkelisiwe Khanyile (April 2019). 'GIS in mining research'. Lecture to GEOG2000, Wits University, 25 April 2019.
  - Richard Ballard (April 2019). 'Spatial trends in Gauteng'. Presentation to Wits Masters students, Introductory Course on Migration and Displacement, 23 April 2019.
  - Gillian Maree and Christina Culwick (April 2019). 'Vulnerability mapping for the Gauteng City-Region'. Presentation to the City of Johannesburg Climate Action Committee, 18 April 2019.
  - Koech Cheruiyot (April 2019). 'Cities/city-regions in the global economy'. City Diplomacy: The Case of South African Cities as Actors in International Affairs, Wits University, 12 April 2019.
  - Richard Ballard (April 2019). 'Inclusive Gauteng'. Champions for Social Cohesion meeting with municipal representatives, 12 April 2019.
  - Christian Hamann (April 2019). 'Overview of the GCRO and urban dynamics of the GCR'. Lecture to the Theology Masters group, University of Pretoria, 8 April 2019.
  - Richard Ballard (April 2019). 'Transnational urbanism interrupted: Chinese investors seeking approval to build the "New York of Africa" at Modderfontein, Johannesburg'. Presentation to Wits Planning Masters students, ARPL 7071: Theories and Practices of Urban Management, 4 April 2019.

## Media publications and appearances

The GCRO has a team of five staff members who work to promote the GCRO on four social media platforms: Twitter, Facebook, Instagram and LinkedIn. Several key outputs have been picked up and shared on our platforms, generating additional traffic and interest in our website.

GCRO staff occasionally write for other media. In the year under review, articles written for media outlets included:

- An article previously written by Julia de Kadt, Alexandra Parker and Christina Culwick, 'Life in Gauteng is improving – but big challenges remain', was republished by *News 24* on 26 April 2019.
- Samkelisiwe Khanyile and Alexandra Parker wrote an article for *The Conversation Africa*, 'Graffiti is an eye-catching way to create lively spaces in cities', which was published on 8 April 2019 and subsequently republished on *AllAfrica*.

GCRO research was cited in the following media:

- Analysis on COVID-19, initially published in the GCRO's March 2020 Map of the Month, *Mapping vulnerability to COVID-19 in Gauteng*, was featured in several publications including the front page of the *Saturday Star*, *Eyewitness News* and *Daily Maverick*.
- The GCRO's Quality of Life data was cited in an article about the South African Human Rights Commission (SAHRC) report *State of Human Rights*, titled 'Gauteng's poor continue to be left behind', by Greg Nicolson, published in *Daily Maverick* on 23 March 2020.
- The GCRO's work on a GCR Water Security Perspective was highlighted in an article titled 'Makhura seeks alternative energy sources to ease Gauteng's load shedding headache' by Lizeka Tandwa for *News24*, following the State of the Province address on 25 February 2020.
- The GCR Water Security Perspective received extensive coverage by the media, including in the *Saturday Star*: 'Gauteng urged to ensure that water consumption is kept at sustainable limits', 12 November 2019, by Sheree Bega; 'Gauteng must avoid any "Day Zero" scenario', 19 November 2019, by Sheree Bega; 'Reservoirs throttled as water supply plummets in Tshwane', by Kgaugelo Masweneng, 13 November 2019. Gillian Maree was interviewed by the following: Voice of Wits, 21 November 2019, 8pm; on-air interview with Newzroom Afrika, 28 October 2019; and an interview with Yolandi Groenewald of the *Vrye Weekblad*.
- The GCRO's collaboration with the Gauteng Provincial Government on water planning is mentioned in an article 'No need to panic over water crisis but use it responsibly – Maile' by Mia Lindeque for *EyeWitness News*, 29 October 2019.
- Gillian Maree did an on-air interview on Newzroom Afrika (channel 405) responding to the Department of Water Affairs press release on water restrictions, on 28 October, 4pm.
- Gillian Maree gave an interview to the *Saturday Star* on 26 October on water security.
- Samkelisiwe Khanyile and Alexandra Parker were interviewed for a piece on graffiti in *Curios.ty*, for an article entitled 'Street talk: Behind the tag', published in Issue 8: # Code. Samkelisiwe Khanyile is also a featured researcher in this issue.
- Prof. Ivan Turok cited GCRO data in an article on backyard dwellings, 'They don't know how to cope with this', by Tshidi Madia for *News24*, 12 October 2019.
- After graduating with a Masters degree from the University of KwaZulu-Natal, Sthembiso Pollen Mkhize appeared on SABC's *Morning Live* on 12 October 2019 to share a brief overview of his findings on sexual and reproductive health among LGBT youth in KwaZulu-Natal.
- The GCRO's data on migrants from the Quality of Life Survey V (2017/8) was used to disprove claims made in a viral video in an article by *AfricaCheck*, 'Unproven that Hillbrow, nearby areas are "80% foreign national" as claimed in much-shared video', by Naphtali Khumalo, also published by *ZimEye*, 4 September 2019.
- The GCRO's data on vulnerability was cited in an article by Sarah Wild and Sipho Kings, 'Africa: South Africa's survival guide to climate change' for *AllAfrica*, which was also featured in *New Frame*, 27 August 2019.
- GCRO data was showcased in an article in *The Times* about Alexandra township, 'Down jobless street: Alex residents share struggles of finding employment', by Belinda Pheto, 11 August 2019.
- Democratic Alliance spokesperson Solly Malatsi used the GCRO's Quality of Life Survey V (2017/18) data in a press release on 'DA is turning local govts around' for *PoliticsWeb*, 7 August 2019.
- Lebogang Maile draws on the GCRO's Quality of Life Survey V (2017/18) data in an article titled 'ANC delivering 1.2m houses in Gauteng just a start' for *Independent Online* (IOL), 29 July 2019.
- The GCRO's February 2018 Map of the Month, *Backyard and informal dwellings: 2001-2016*, was featured in an article titled 'Backyard not backward: Intentional living, the rise of imikhukhu and urban densification for dignity', by Buhle Zuma for *Phys Org*, 25 July 2019.
- The GCRO is showcased in an article on careers at Wits University called 'Futureproof your career at the University of Witwatersrand' in *Study International News*, 2 July 2019.

- GCRO research on migration is quoted in a detailed letter, 'South Africa cannot house illegal immigrants', in the *Alberton Record*, 23 June 2019.
- The GCRO's Gillian Maree participated in a mediated conversation about water in Gauteng on SAFM on 28 May 2019.
- The GCRO is mentioned in 'Letter: ANC lifts support in Gauteng metros at DA's expense' by Dr Rabelani Dagada, *Business Day*, 15 May 2019.
- The GCRO's Urban Gaze documentary photography competition was featured in an online article by Garreth van Niekerk titled 'Gauteng in the spotlight at documentary photography exhibition' in *House and Leisure*, 10 May 2019.
- Julia de Kadt was in conversation with Iman Rapedi discussing the Quality of Life Survey on PowerFM, 29 April 2019.
- GCRO research on government responsibilities was featured in an article entitled 'Whose responsibility is it anyway?' by Jacques Coetzee, published in the *Mail & Guardian*, 18 April 2019.
- Julia de Kadt was interviewed by Karima Brown on 702 Talk Radio on 23 April 2019.
- The GCRO was mentioned by ANC Regional Deputy Chair Jongizizwe Dlabathi in a panel discussion about housing, 'Housing at the centre of issues raised by Katlehong residents', on 702 Talk Radio on 17 April 2019.
- GCRO research on voting behaviour was cited in 'IEC banks on 70% voter turnout at elections', by Simnikiwe Hlatshaneni, published in *The Citizen*, 12 April 2019.
- GCRO research was cited in 'Liveable cities rankings: How a global enterprise is influencing urban change', by Jenny McArthur and Tim Moonen, in *The Conversation Africa*, 11 April 2019.



Photograph by Richard Ballard





Photograph by **Christina Culwick**

## Teaching, supervision, external examining, etc.

Where appropriate, GCRO staff contribute to the teaching and learning work of various universities, predominantly through lecturing and supervision, but also in other ways:

- Richard Ballard's supervision included the following: Clive Greenstone (University of KwaZulu-Natal [UKZN], PhD) completed; Aubrey Mboniseni Musetha (Wits University, Masters) completed; Carla Soudien (Wits, Masters) completed; Danford Chibvongodze (UKZN, PhD) full draft under review by supervisors; Ndwa Tshishonga (UKZN, PhD) full draft reviewed by supervisors, student revising; Baleseng Mokoena (Wits, Masters) full draft under review by supervisor; Darlington Mushongera (Wits, PhD) ongoing reading of draft chapters; Mamokete Matjomane (Wits, PhD) ongoing reading of draft chapters.
- Alexandra Parker attended external exams for third year Planning students, Wits (Housing elective).
- Alexandra Parker supervised Wits MSc in Development Planning student, Shylet Nyamwanza.
- Mamokete Matjomane externally examined Urban and Regional Planning Masters student, Sarah Reeves, in July 2019.
- Thembanani Mkhize externally examined an MSc in Development Planning research report by Shylet Nyamwanza in April 2019.
- Noncedo Khumalo, a final-year student at the University of Johannesburg, completed five weeks of work experience at the GCRO, supervised by Gillian Maree.

- Samy Katumba is supervising Bellina Chokoe's MSc at Wits University.
- Samy Katumba is co-supervising Aavishkar Ramparsad's Honours course at Wits University.
- Samkelisiwe Khanyile is co-supervising Graeme Dor, enrolled for an MSc in GIS and Remote Sensing at Wits University.
- Gillian Maree is co-supervising Nomfundo Shoba's MSc on Water Security.
- Gillian Maree externally examined an MSc for the Department of Animal, Plant and Environmental Sciences (APES) at Wits.
- Ngaka Mosiane examined a PhD for the Durban University of Technology.

## Wider academic citizenship

- Alexandra Parker reviewed a manuscript for *Journal of Critical Arts* in April and July 2019.
- Julia de Kadt reviewed a manuscript for *Cities* in August 2019.
- Julia de Kadt reviewed a manuscript for *AGENDA* in July 2019.
- Darlington Mushongera reviewed a manuscript for *Urban Forum* in November 2019.
- Julia de Kadt reviewed a manuscript for *Development Southern Africa* in November 2019.
- Alexandra Parker reviewed a manuscript for *Critical African Studies* in January 2020.
- Christina Culwick reviewed a candidate for a National Research Foundation (NRF) rating.
- Richard Ballard reviewed articles for *Environment and Planning D: Society and Space*, *World Development*, *Urban Studies*, *Antipode* and chapters for a book on density.
- Sthembiso Pollen Mkhize reviewed a manuscript for *Journal of Homosexuality* in August 2020.



#### **GAUTENG CITY-REGION OBSERVATORY**

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